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Agricultural.

Growing Rape.

The evidence of all those who have grown rape seems to be that it is a most valuable forage crop for sheep, swine and poultry, also fattening stock and dry cows, and would be for milk cows, if it were not for the turnip flange in the milk.

Care is necessary in turning cattle and sheep into it, however, as too hearty a feed may cause bloating, and therefore they should be given a feed of grass or dry hay before they are let in the rape field, and not be allowed to remain there too long. It may also cause scouring in lambs and calves, but removal to other pasture will usually check this. The time allowed in the rape field may be gradually increased day by day, until they are allowed to spend the day there if they please, though it is better, even then, to have another field to which they can go and lie down to chew the cud. With hogs there is no danger of bloat, but may be of scouring at first.

After a cold storm which keeps the sheep out of the rape field for a day or two, the same care is needed to see that they do not go to it hungry, nor should they be put in while there is frost on the leaves, lest so much cold food may cause bowel disorders. As the sheep get very fat on rape it would be well to visit them twice a day, to see that none of them lie down and get on their backs in low places, or between the ridges, if they are sown in ridges, as some advise. The sheep in that position cannot get up without assistance, and cannot live many hours.

The rape plant will grow upon almost any ground where turnips will grow, and should be sown in June or July, on land well prepared, in drills about 2 1/2 feet apart, using about 2 1/2 pounds per acre. Some sow it broadcast early in the spring with oats, using about five pounds per acre, but this plan does not seem to give as good satisfaction as sowing in drills. As regards the sowing in ridges spoken of above, we never saw any advantage in that for turnips unless it were in a place where the ground was liable to be flooded at some part of the season, and we would not select such a field for turnips or rape, if we had higher land, even though it were not so rich. Therefore we advise level culture.

The seed is one of the least expensive of any that is used for forage plants, being from six to seven cents a pound in lots of ten pounds or over, or not to exceed twenty-five cents an acre. There are some who have grown it and do not let the cattle or sheep on it, but cut some twice a day and feed it at the barn or in the yard. They say that if fed to milk cows directly, or an hour after milking, it imparts no taint to the milk, as the effects have passed off in other secretions before the next milking time. This may be true, as we have fed made turnip tops and cabbage leaves in that way and could not detect the flavor in the milk, nor did our customers, some of whom would not have been backward about speaking of it if they had.

After it is cut or eaten off it quickly starts a new growth, and one reason why cutting and carrying it to the animals is liked by many is that they can use the oldest first, while the animals will sometimes go back to the more tender leaves just starting, thus checking their growth, and getting poorer forer because immature. It should be used for feeding in about six weeks after the first has been sown, and will be fit to use at least four weeks from that time, when the second crop should be fit to begin on. It will continue growing even after a severe frost, as it does not kill any more easily than a turnip. The Dwarf Essex is reckoned to be the best variety.

It cannot be cured for hay or put in the silage, but may be kept some weeks in a cool place if spread so thin that it will not heat, and this is very convenient for those who want it for poultry feeding in early winter. The fowl are said to like it very well, and it is an excellent green food for them.

One word more about the bloating. If the sheep have ready access to salt it is said to lessen the chance of bloating, especially when they also have another pasture to run into. An animal that is badly bloated may be killed if that is easier than curing, and the meat is not supposed to be injured at all for food, though if it had fed long on rape there might be the turnip or rape flavor in the meat. But the danger of bloating is usually over before the end of the first week, if not before the end of the first week. Those who fatten stock on rape should take them from it about two weeks before slaughtering, that the flavor may pass away from the meat.

We hope our readers will try a small field

of it, at any rate, for this year, for we have seen nothing yet from any one who has tried it, and was not well satisfied with the result. It will need to be kept clear of weeds, and perhaps thinned as rutabagas would be when it first comes up, but it soon shades the ground that a weed seed will not germinate.

Orchard Cover Crops.

Bulletin 198, from Cornell Experiment Station, Ithaca, N. Y., is an exhaustive treatise upon cover crops for orchards, and we propose to extract from it, in a condensed form, some part of the information it gives upon a subject which has become of great importance at this time, when the demand for American fruit is increasing so rapidly that we need to maintain the fertility and productivity of our orchards.

While some succeed in doing this by top-dressing and pasturing, and others by the use of farm manures or commercial fertilizers, and perhaps by clean cultivation and manuring, this bulletin treats more especially of the results of green manuring to supply the nitrogen and humus necessary for the growth of trees and fruit, instead of furnishing them in barnyard manure, often hard to obtain in sufficient quantity, expensive in first cost, and made much more so by the labor of hauling and handling.

The solubility of the mineral plant food is known to depend largely upon the presence of carbonic acid in the soil. This depends principally upon the decay of organic vegetable matter. As they decompose, humus is formed as a product of the decay. They not only furnish nitrogenous plant food, but liberate the mineral elements, a process which is called nitrification. The ammonium compounds become oxidized into nitrates, and further oxidation changes them again into nitrates. The active agents in this work are known to be bacteria, and they have been identified. They thrive best in soils having an adequate supply of oxygen and water. Humus and good tillage secure moisture and make the soil porous. While this is to be obtained from barnyard manure, we have given above reasons why it is desirable to find cheaper methods, and also, if used as freely on the orchard as in cultivated crops, the excess of nitrogen may have an injurious rather than a beneficial effect.

The cover crop does not mean that it is something to be taken off as grain crops would be for the grain and straw, but something grown especially for the benefit of the orchard. The period of active growth of the cover crop should not correspond with the period of fruit growth, though it can hardly be avoided that they should overlap each other.

The ideal system of managing orchard lands is perhaps most nearly approached when the soil is stirred as early in the spring as is practicable, and as deeply as may be without injury to the roots, maintaining thorough surface tillage until the trees form their terminal buds, and then to use a cover crop, selecting some plant which will grow during the autumn and early winter, survive the winter and grow in the spring until turned under.

The effects of tillage on the soil are to set free plant food and promote nitrification; to supply air to the soil and roots, fine the soil and break up the hard pan, increase the waterholding capacity of the soil, absorb and conserve moisture, encourage trees to root more deeply, and assist that capillary attraction which brings up moisture from below. The cover crop does all of this and more. It adds plant food, and saves nitrates which might leach away. It adds humus to the soil, increases the moisture by holding it in, and snow, and it protects the roots of trees from severe frosts.

The Iowa Experiment Station tested soils for moisture in midwinter in a dry and rather open season for that section. The highest percentage of moisture was found where a crop of hairy vetch was growing, in the first 6, 12 and 18 inches, though between 12 and 18 inches deep there was more in soil cultivated without a cover crop, which was the next larger in the first six inches and the entire 18 inches. Soy beans took third rank, blue grass fourth and crimson clover least. The soil was frozen 2 1/2 inches deep when kept clean, and where the soy beans were 16 inches deep and under the vetch, 15 under the crimson clover, and 12 under the blue grass sod. Similar tests at Ithaca showed an average moisture of over 11 per cent in the first foot, and at depths from 12 to 18 and 18 to 24 inches. Under cow peas the moisture averaged a little more than ten per cent, and on bare ground about 7 1/2 per cent; in both these two last the moisture content being greater between 12 and 18 inches deep than in that below, and least in the part nearest the surface.

Earthworms were found an important feature in promoting the growth of the roots of leguminous plants, which seemed to follow their burrows downward and make a large growth, perhaps finding plant food in the slimy walls of their tunnels. The cover crops serve to prevent that washing of the soil which takes place in winter and spring, and they also hold the dry leaves to add to the vegetable matter in the soil. The leaves of three Norway maples ten years old were found to average 4 1/2 pounds of dry leaves per tree. This is probably twice as much as the foliage of an apple tree would furnish. The value of this humus in the soil in adding to its capacity for holding water has already been spoken of, but scarcely too much could be said upon this point, as increasing its ability to grow grass or clover, or to produce fruit of good size.

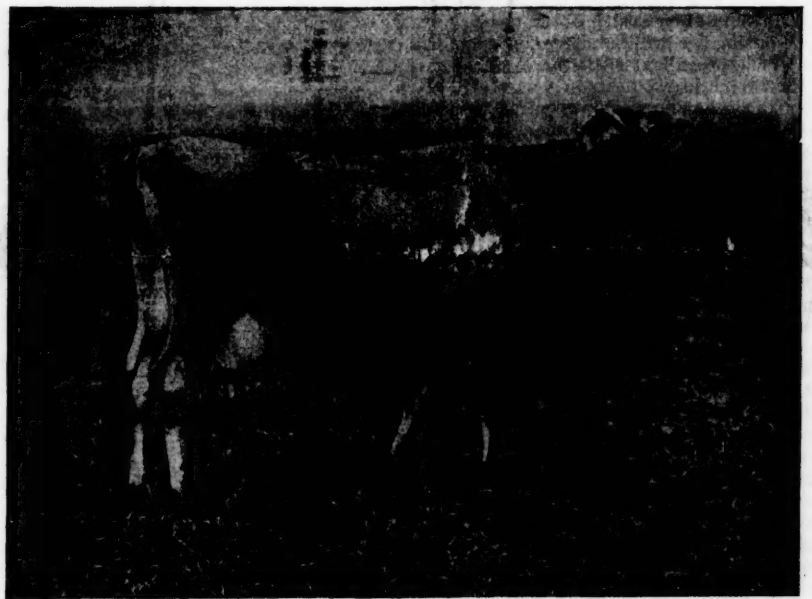
The cover crop takes up and returns to the soil the mineral elements, but if leguminous plants are used they also add to it considerable amounts of the most costly fertilizing material, the nitrogen. The alfalfa crop, after a growing period of three months, is estimated to return to the soil 136 pounds of



IMP. FLYING FOX. CHAMPION BULL OVER THE ISLAND OF JERSEY.
The most famous animal that ever left Jersey since the champion cow, Coomassie, came to America in 1881.

nitrogen to the acre; the mammoth red or peavine clover 130 pounds; crimson clover 104 pounds, and common red clover 87 pounds. The physical condition of the soil was also greatly improved. Vetch was found to furnish, after a growth of three months, 236.3 pounds of nitrogen, 56.4 pounds of phosphoric acid and 53 pounds of

mass of fibrous roots. On good soils has abundance of the nitrogen-gathering nodules, grows late in the fall and early in the spring, stools out freely and forms a close mat on the ground. The high cost of seed is a present objection, but as it matures seed in the Northern States, which the cow pea will not, the orchardist can grow his own

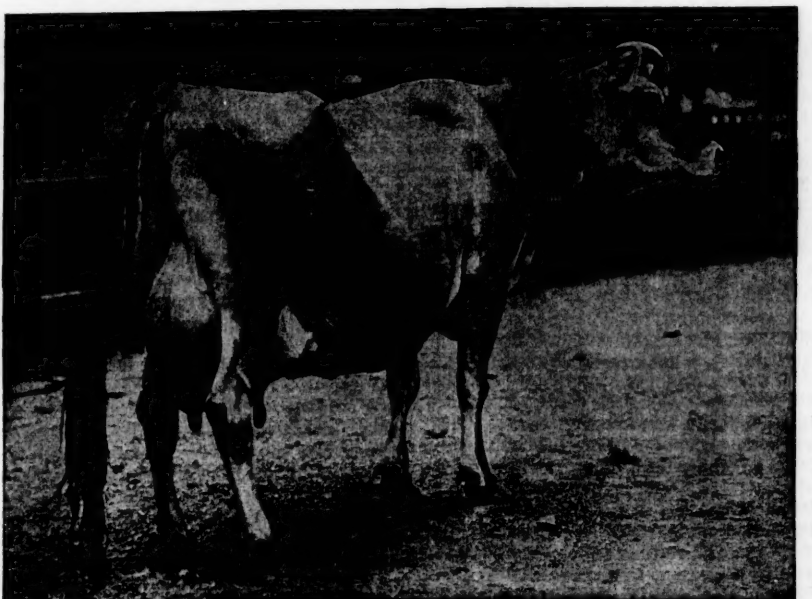


IMP. ROSETTE 5th. CHAMPION COW OVER THE ISLAND OF JERSEY.
Dam of the great bulls, Flying Fox, Ravachol, John Bull, Firfarshire, etc. Taken at 15 years old; after m lki ig.

potash per acre in tops and roots. Cow peas furnished 32.6 pounds of nitrogen, 25.6 pounds of phosphoric acid and 21 pounds of potash. The vetch was from the heaviest growth, and did not produce as much upon the higher lands, so was not a fair average. Cover crops may be divided into two classes, nitrogenous and non-nitrogenous plants. In the first class is alfalfa, which

seed after the first season. The experience of one who has tested it as a forage crop is given at some length, but it is difficult to harvest for hay, by reason of its being so close to the ground, and if sown with rye for it to climb on it is not easy to cure.

The cow pea is a hot-weather plant, and should not be put in until corn-planting time, and goes down with the first frost. It



IMP. ROSETTE 5th. CHAMPION COW OVER THE ISLAND OF JERSEY.
Dam of the bull, Flying Fox and the cow, Alicante, both champions over the Island. Taken at 13 years old. See page 8.

has some disadvantages as well as advantages. If not plowed under the first spring it is hard to subdue, and it does not stool much the first year, so that to produce a good cover crop the first winter it needs to be sown more thickly than is usually recommended, but its roots forage deeply, and there is a large proportion of root to top. The seed germinates somewhat more certainly than red clover.

The English divide the cultivated vetches into spring and winter vetches. The hairy vetch is a variety of winter vetch imported from Russia in 1897. It grows at a low temperature, and makes better headway on poor soils than most plants with the exception of sweet clover, and produces a great

is a good renovator of the soil, but its season of growth does not fit it for an orchard cover crop, and the same may be said of the soy bean, so much valued in the South. The velvet bean has much the appearance of the cow pea, and is finding favor in Florida and some of the other Southern States, but is not yet tested in the North. The Canada pea does better than clover on clay soils. At the station they were sown July 1, made a strong growth, were mown Aug. 15, and a second growth appeared, which formed an excellent ground cover in November.

Mammoth or pea vine clover is a stronger grower than common red. Causes of failure with it may be insufficient preparation

of the soil, excessive dryness, density of shade and light seeding. Never less than fifteen pounds of seeds per acre should be used, and twenty pounds usually gives better results. Seeded in July it forms a vigorous plant in October, with a fleshy crown; stalks may be thirty inches long, and it has many lateral roots.

Crimson clover is a vigorous annual, but the laterals are weaker than the mammoth clover, and the plant does not stool out like red clover. It winters fairly well in the peach districts, but is tender farther north. Usually germinates better than the mammoth clover, but never less than twenty pounds of seed should be sown to the acre. Gives better results when sown alone than with a nurse crop.

Sweet clover is a biennial, grows on the poorest soil, vegetating early and late, is hairy, and ought to be valuable as a green manure. Cattle not accustomed to it do not eat it readily. Has not been well tested as a cover crop. Seed should be sown at the rate of ten to twelve pounds to the acre. Beggar weed is a leguminous plant, recommended by the Florida Experiment Station as a good cover crop, well adapted to conditions in that State, where it reseeds itself. It is the practice there to cultivate it in the early part of the season, out and remove the first and second growth, and leave the third as a soil cover. The writer knows of no tests of it having been made in Northern States as a cover crop. Is a good collector of nitrogen.

There are nitrogen consumers useful for green manuring. Rape and turnips are not of themselves sufficient cover crops, but with clovers are useful and highly satisfactory. They may be used as pioneer crops on extremely poor soil, but in uncultivated orchards are most valuable when used as pasture for sheep.

Rye is one of the best of the non-nitrogenous class. It may be sown as late as Nov. 1 in central New York, with fair assurance of success. It should not be sown early, and should be turned under early in the spring, or it is unmanageable and decays slowly. Oats and barley are not suited to the conditions in New York, as they draw heavily on the moisture in the soil, and add but little to its fertility. Buckwheat is one of the surest crops for midsummer sowing. While the amount of humus returned to the soil is not large, its effect upon the physical qualities are markedly favorable. Farmers say it leaves the land in good condition. Corn is out of place as an orchard cover crop, as it draws heavily on the moisture, and is not easily covered in the spring.

It is not only feasible, but often desirable, to mix some of these cover crops. Mr. B. J. Case, a large orchardist near Sudus, N. Y., finds a mixture of six pounds mammoth clover, ten pounds of alfalfa and 2 1/2 ounces turnip seed have given desirable results. Six pounds each of alfalfa and crimson clover, three pounds alsike and 2 1/2 ounces strap-leaved turnips also made a desirable cover crop. When cow peas are sown in drills for cultivation in early summer, crimson clover, rye or turnips may be added at last cultivation, or after the fruit drops rye, rape or turnips may be used. Some Michigan fruit growers have recommended a mixture of crimson clover and oats, but at the college farm they found the oats to so crowd and shade the clover that the latter did not amount to much. At the Geneva station a mixture of one and a half bushels of vetch with a half bushel of turnip seed proved very satisfactory. Canada peas and buckwheat mixed work well on difficult clay soils.

In an experiment at Brookport, N. Y., they report Whippoorwill and Wonderful cow peas five pecks to the acre of seed; black eye cow pea four pecks, buckwheat six pecks, all sown Aug. 6, and killed by frost in October; hairy vetch sown at same time, four pecks to the acre, crimson clover fifteen pounds per acre, and mammoth clover twenty pounds per acre, sown Aug. 5, were growing vigorously after frost; alfalfa, 16 pounds per acre, made a fair stand, and twenty pounds per acre a strong, thick cover.

Several experiments in different sections were reported, but they contain but little information that differs from above, except that at the Minnesota Station they like the Hubbard squash as a summer cover crop, and oats sown the latter part of July and left to hold the snow in winter. Professor Price of Iowa likes the Essex rape, as it lasts until along in the winter before it is killed by the frost. He also likes oats sown from Aug. 1 to Sept. 15 as a winter cover crop. As it is killed in the winter, there is no danger of it growing before it can be plowed under.

They give the following summary of their conclusions:

1. The orchard is to be viewed in the light of a specific crop.
2. Humus is essential to the liberation of plant food.
3. Barnyard manure supplies organic matter but is often beyond the reach of the orchardist.
4. Probably the ideal system of orchard management includes clean tillage and a cover crop in the annual programme.
5. Effects of tillage and of cover crops are similar in many respects; but while both tend to make plant food available, the cover crop may actually add to the store.
6. The cover crop prevented frost from penetrating the ground deeper than sixteen inches as compared to twenty-one inches on bare ground (Iowa).
7. The percentage of water in cover-cropped ground compared favorably with bare, uncultivated ground in Iowa and New York; at Ithaca, bare, uncultivated ground had less moisture than soil adjacent but cropped with hairy vetch.
8. The texture of the soil and subsoil is much improved by the burrowing habits of the earthworm, and the penetrating character of clover roots. The latter are

much assisted on their downward path by the burrows of the earthworm.

9. The clover prevents surface washing and injurious erosion of orchard lands.

10. A comparison of the fertilizing qualities of the clovers, cowpeas and hairy vetch placed the last far in the lead, with alfalfa and mammoth clover second and third in manurial value.

11. Hairy vetch appears to be a valuable leguminous plant for cover-crop purposes; it is hardy, deep-rooting, grows at low temperatures, and produces a dense mat of vegetation on the surface of the ground.

12. Cowpeas is particularly valuable for a system of semi-cultivation and as part of a combination crop.

13. Of the nitrogen consumers rye and buckwheat are of most importance. Oats are favorably spoken of in some parts of the country.

14. Certain mixtures are used to advantage. Alfalfa, mammoth clover and turnips have given satisfaction, but oats and crimson clover do not succeed.

15. Co-operative experiments with prominent fruit growers demonstrate the necessity of preparing the soil with great thoroughness before seeding; that good surface tillage conserves moisture and does much to insure a satisfactory catch; rolling clover-seeded ground proves an excellent aid to prompt germination.

Why Rich Poor Cows?

Only the rich can afford to keep poor cows, and they don't, and the poorer a man is the better his few cows should be if he is to make a living. To see a poor man keeping poor cows is a sight to make one sigh at the short-sightedness of man. A poor man cannot afford to waste his money on poor cows, but a rich one can. Usually we hear it said that the poor man cannot afford to own good cows. This is contrary to all experience. If he can afford to own any he can afford to own the best.

The poor man who refuses to spend the money necessary to purchase a good cow, and finds enough to get hold of a second-grade one, must work double time to get any profit, and wait years before he can breed it up to a higher standard. It is better to realize this at the beginning, that the poor man better put all his money in half a dozen good cows than in a dozen or two inferior ones. In the end he will make more money. The profits of dairying depend entirely upon the cows and the system of raising feed and giving it to the animals. There is nothing else to decide the matter one way or the other. At the Pan-American model dairy there were good, but not fancy-bred cows, which made forty dollars profit per year for their owners, after the cost of feed had been deducted, which, by the way, was bought in the market and not raised on the home farm. If one good cow will make that profit a herd of ten or twenty should net one a pretty fair income. This can be done in almost any region where the grass is good and where good methods of farming and dairying are observed. More can be accomplished, but this is enough to show what some dairies can and are doing.

It matters not so much what kind of breed you have, so long as the animals are adapted to dairying, and they are good representatives of their race. Each animal must be judged on its individual merits, and if not up to the standard it should be discarded. Price does not always measure the value of a serviceable cow. Sometimes high prices are tacked on for certain structural forms and breed characteristics which would not be of any use to the ordinary dairyman.

DR. A. T. MORSE.

Pennsylvania.

Strawberry Culture.

In planting for commercial purposes, be sure to have the early and late sorts, and then see to it that they are planted separately so that there will be no danger of mixing. It is only possible to make a success with strawberries by having both early and late producing plants, because when all the fruits come together there is sure to be some trouble in marketing them successfully. Half early and half late and medium varieties give the best results. The plants put out in early spring should not be allowed to produce the same season. Should fruit buds appear pinch them off. To get fruits in one year the plants must be set out in the middle of summer, and then they can be allowed to yield all they wish the following spring. By planting this spring and keeping off the fruit buds until next season we will have strong, sturdy plants and an excellent crop of berries. Good plants, to begin with, must be the first step, but they must be kept strong and sturdy by good culture and protection. The first impulse of every plant is to propagate itself, and it will attempt this to such an extent that it will ruin its own vitality. It will send out buds and runners to such a lavish degree that in a very short time there will be little left of the plant, and numbers rather than quality will be the result.

This tendency must be checked. The vitality of the plants must be conserved, and the strength limited to a few fruits and runners instead of dissipated over many. The runners must be removed as fast as they appear during the fruiting season if we are after commercial fruits. It must come out either in the plants or fruits. With good culture and rich soil this system of checking the runners will make the crop of strawberries large and profitable. By following such a simple process strawberry culture is really a very simple thing, and from good plants we can be sure of crops that will sell in any market. But the best plants obtainable can be ruined by letting runners extend in all directions. Even when new plants are needed the runners should be limited in numbers.

New York. S. W. CHAMBERS.

Agricultural.

George M. Patchen (2.23 1-2).
George M. Patchen, whose likeness appears upon the first page of this paper, was a bright bay stallion with black points and star in forehead, fully sixteen hands high, with a large, intelligent eye, a head somewhat inclined to coarseness, a well-formed neck, strong, oblique shoulders, large body, with lengthy barrel, good back, strong loin, long hips, powerful quarters, strong, low-set hocks, legs clean, broad and flinty, feet of good size and perfectly sound. He was bred by H. F. Sikes, Monmouth County, N. J., got by Cassius M. Clay, son of Henry Clay, and foaled in 1849. The dam of George M. Patchen was a light chestnut mare, bred by Richard Tone of Harlem, N. Y., got by a two-year-old colt called Heam, whose sire was imported from England, he by Duroc, son of imported Diomed, from Miller's Dam, by imported Messenger. The dam of this chestnut mare which brought George M. Patchen is described as a large, coarse animal whose breeding has never been traced. At the time she brought the dam of George M. Patchen she was owned by Richard Tone of New York.

After weaning her Richard Tone sold the filly to his brother Thomas, by whom she was raised. At two years of age she was broken to wagon and put to general farm work. When three years old Mr. Tone states that she was the best animal to plow corn that he ever drove. Hard usage, however, soon rendered her unsound, and she was sold to a blacksmith named James Scanlan, who after a time sold her to Richard Carman for \$100. This gentleman used her to pole on a road wagon, as mate for an animal which cost him \$1500, and found the cheap mare the better of the two, especially so far as courage and endurance were concerned. She finally became unfit for road work on account of founder, and was sent to H. F. Sikes, above named, who bred her to Cassius M. Clay, a son of old Henry Clay. In the course of time Mr. Carman saw the mare and pronounced her barren. Mr. Sikes claimed to the contrary, however, but could not convince the owner of the mare, who was so confident that she would not raise a foal that he made a present of her offspring that season to Mr. Sikes. In due time she foaled the bay colt since known as the famous trotting stallion George M. Patchen (2.23 1-2).

Cassius M. Clay, the sire of George M. Patchen, was a large brown horse. It has been stated upon apparently good authority that he was sixteen hands high. His sire was Henry Clay, founder of the Clay trotting family. His dam was known as Jersey Kate. Nothing is known of her ancestry. It was believed by some that she was a descendant of Mambrino, the running-bred son of imported Messenger that got old Abdallah, Mambrino Paymaster and other noted animals. The only evidence ever found to support this claim was that she came from a locality where descendants of Mambrino existed, and in appearance resembled Mambrino. There is no doubt that she was a very excellent animal.

She first produced a foal by an ordinary stallion, and the foal became quite noted as a trotter under the name of John Anderson. He was a gray gelding, and took a record of 2.41 in a five-hundred race which he won at Centerville, L. I., Sept. 8, 1845. Trouble won the first two heats in 2.42, 2.43, but John Anderson got the next three in 2.41, 2.41, 2.44. This was fast for that early day, and the owners of Jersey Kate thought that if she could produce such a trotter as John Anderson (2.41), by an ordinary stallion, she might throw something valuable if mated with such a horse as Henry Clay, so he gave her an opportunity. The result was Cassius M. Clay, that lived to be only eleven years old, but at the time of his death was one of the most popular stallions in this country. George M. Patchen was the only one of his race that took a record in standard time. He left nine sons, however, that sired standard speed.

Henry Clay, that got Cassius M. Clay, the sire of George M. Patchen (2.23 1-2), was by Andrew Jackson, and his dam was known as Surry. It is generally believed that Surry originated in Canada. Some who knew her claim that she bore a close resemblance in conformation to the French Canadian stock. She was quite a fast trotter, but it was generally believed that she was not a game mare, and that some of the qualities which rendered her undesirable as a race performer from her. This trait is a difficult one to eradicate when it is found in an animal. It may remain latent for a generation or two, and then crop out again and assert itself just as strongly as ever. Owing to the fact that some of the descendants of Henry Clay exhibited this trait, a prejudice was created among many horsemen for a time against the entire Clay trotting family, and some of the horsemen haven't got over it yet.

Andrew Jackson, sire of Henry Clay, was a trotter, and a great one for his day. He got a record of 2.38 to saddle in the second heat of a two-mile race that he won from Lady Washington and Daniel D. Tompkins at Philadelphia, Pa., Oct. 27, 1835.

Nothing is known of the blood lines of the dam of Andrew Jackson. She was given a Messenger pedigree at one time, but investigation proved that it had no foundation in fact. She came from Ohio to Pennsylvania in a drove of horses, and was considered a good animal. She was black in color, and double-legged, that is, she both paced and trotted. She was mated with Young Bashaw, and was afterwards sold to a brick-maker named Daniel Jeffries. She was in a brickyard when she dropped her Young Bashaw colt, and when the colt was found he was in the mud and water in the clay pit. His involuntary bath probably did not improve his appearance. When Mr. Jeffries saw the youngster he was disgusted with him and offered to give a dollar to any of his boys who would kill the colt. Mrs. Jeffries fortunately came to the rescue and declared that the boy who killed that colt should never again eat at her table. The boys, no doubt, wanted the dollar, but didn't like the idea of being turned out of doors, so did not kill the colt.

Besides Henry Clay, Andrew Jackson got Kemble Jackson and Long Island Black Hawk, both noted trotters. Kemble Jackson, driven by the noted reinsman Hiram Woodruff, best some of the best trotters of his day in a three-mile race. He died from rupture, caused while doing stud duty, about three weeks after winning the above race. Hiram Woodruff says of Kemble Jackson in his "Trotting Horse of America": "He was the best weight puller and long-distance horse combined that I ever trained and drove." He made a record of 2.34 to wagon.

Long Island Black Hawk is also mentioned by the same author as a great weight puller. He was a black stallion, with white legs, and also had a star in his forehead. He was the first horse that trotted a

mile in 2.40, pulling a wagon and driver, whose combined weight was 300 pounds. He took a record of 2.38 to wagon. His dam was by Tippecanoe, a thoroughbred son of imported Messenger. He got the trotter Prince (2.34). He also got seven stallions that sired trotters with records of 2.30 or better.

One of these stallions was Verno's Black Hawk, whose dam was by Webster's Kentucky Whip, a thoroughbred son of Black-burn's Whip. The most successful sire in the Long Island Black Hawk family was Green's Bashaw, whose sire was Verno's Black Hawk. The dam of Green's Bashaw was known as Belle. She was got by Webster's Tom Thumb, and her dam was the famous Charles Kent mare that produced Rydyk's Hambletonian. All the get of Andrew Jackson, except Henry Clay, were noted for gameness and good staying qualities. If Henry Clay, or some of his descendants, failed in these respects, it was doubtless owing to the influence of this Surry mare, the dam of Henry Clay.

Young Bashaw, the sire of Andrew Jackson, was got by "Barb, of the pure lineage," imported from Tripoli in 1820 and registered in the Thoroughbred Stud Book as Grand Bashaw. He was very beautiful in conformation, black in color, with a small white star and snip. He was only about 14.1 hands in height. The dam of Young Bashaw was Pearl, by Bond's First Consul. This Bond's First Consul is registered in Bruce's American Stud Book, Vol. I. It is there stated that "He was a great race horse, won twenty-one races from three to seven years old, and was not beaten until he was eight years old." Young Bashaw's second dam was by imported Messenger. Young Bashaw stood about 15.3 hands in height. Besides Andrew Jackson he got Black Bashaw, Charlotte Temple, Washington and some others of note.

Mr. Sikes sold George M. Patchen in his two-year-old form to John Buckley of Bordentown, N. J., for \$400. A few months later Mr. Buckley sold a half-interest in him to Dr. Longstreet, also of Bordentown. In 1851, being then but two years old, a few mares were mated with him, from one of which he got the stallion Admiral Patchen, sire of Brandy Boy (2.30). In 1852 he was placed in the stud at Bordentown, N. J., and used for stock purposes until 1858, making the season of 1857 at Newton, N. J., and in the fall of that year won a race at Newton, beating Wolf and American Star in 2.44, 2.41. In his six-year-old form, 1853, George M. Patchen got the noted trotting mare Lucy (2.18) from a daughter of May Day, by Sir Henry, a son of Sir Archy. In her prime Lucy was one of the fastest and gamest trotters upon the turf. During her career she met and defeated such celebrities as Goldsmith Maid (2.14), American Girl (2.16), Lady Thorne (2.18), Gen. Butler, George Palmer and George Wilkes, placing her mark at 2.18, and winning sixty-two heats in 2.30 or better. Godfrey's Patchen, sire of Hopeful (2.14) and seven other 2.30 performers, was produced the same year as Lucy (2.18). The dam of Godfrey's Patchen was by Jersey Henry, a son of Sir Henry, and his second dam was by John Richards, another son of Sir Archy.

In 1854 George M. Patchen got the stallion New Jersey, sire of Marshall Ney (2.29), and in 1856 got Wild Wagoner, sire of Black Frank (2.24), Lydia Thompson (2.26) and Essex Maid (2.30). In 1857 he got Henry B. Patchen, sire of four 2.30 performers, and also of Emeline, the dam of nine trotters with records of 2.30 or better. Smith's Mambrino Patchen, sire of Orient (2.24) and Highland Stranger (2.25), also resulted from the season of 1857, and in 1858 he got Charles E. Loew (2.25). The trotting stallion George M. Patchen Jr. (2.27), sometimes called California Patchen, and Big Mary (2.28) were also produced by him prior to 1859.

In 1859 he got Tom Patchen, sometimes called Bill Wellman, that had his leg broken at Portland, Me., where he was engaged to trot a race many years ago. After the injury Tom Patchen was bought by Gilbert Fowler, who stood him at Portland several seasons, during which he got Jack Spratt (2.23), one of the fastest trotters owned in Maine in his day. Tom Patchen also got King Patchen, sire of Forrest Patchen (2.19).

During the season of 1859, George M. Patchen was used chiefly for track purposes, beginning at Union Course, L. I., May 9, where, after losing the first two heats, he won a race, getting a record of 2.32. Over the same track, the 29th of June, following, he won a race to wagon, beating Lady Woodruff, best time 2.30, and on the following day won a race of two-mile heats to harness in 5.01, 5.03, beating Lady Woodruff and Brown Dick. On the 7th of July, 1859, he beat Brown Dick and Miller's Damsel, taking first, fourth and fifth heats in 2.26, 2.28, 2.29. At Eclipse Course, L. I., Oct. 20, he again defeated Brown Dick, winning the first heat in 2.24, and displacing Dick in 2.28 the second heat. Six days later he defeated Lanet at Philadelphia, losing the first heat in 2.24, making a dead heat in the second, and distancing Lanet in the third. Time, 2.29. Oct. 31 he was defeated by Lanet in a race to saddle. Time, 2.25, 2.25, 2.27. Nov. 3 he beat Brown Dick in straight heats over the same track. Time, 2.24, 2.26, 2.29. The following week he defeated Lanet and Brown Dick, taking first, fourth and fifth heats in 2.29, 2.32, 2.29.

George M. Patchen was next matched to trot against the celebrated Flora Temple, then queen of the trotting turf, the race to be to saddle, over the Union Course, Long Island.

Spring Medicine

There is no other season when good medicine is so much needed as in the Spring.

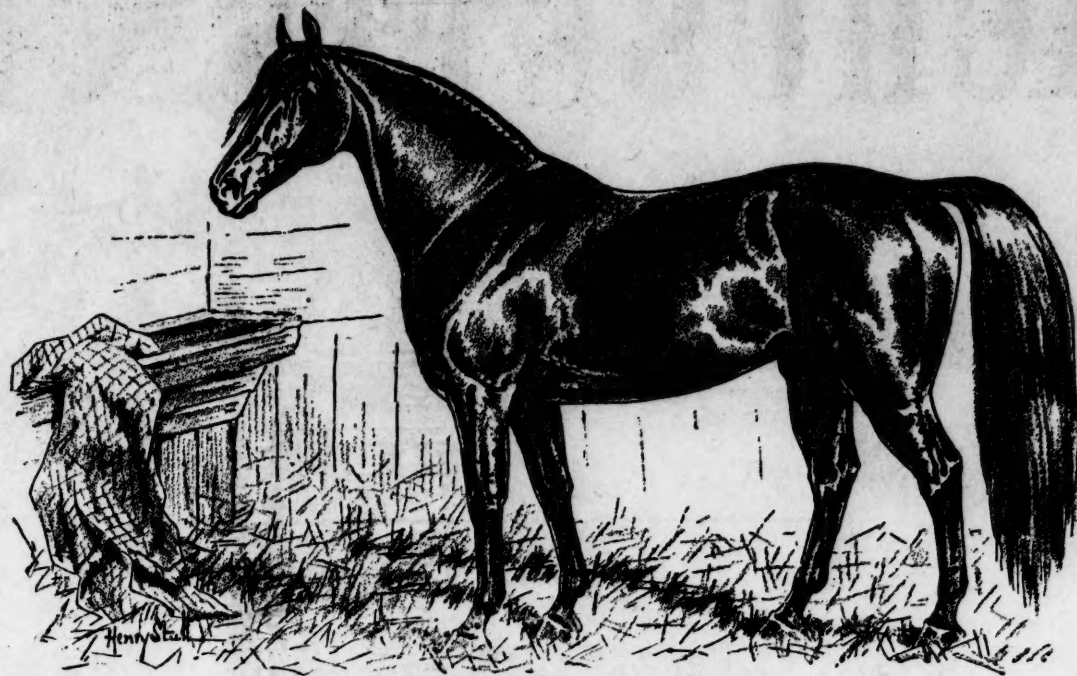
The blood is impure, weak and impoverished—a condition indicated by pimples and other eruptions on the face and body, by deficient vitality, loss of appetite, lack of strength, and want of animation.

Hood's Sarsaparilla and Pills

Make the blood pure, vigorous and rich, create appetite, give vitality, strength and animation, and cure all eruptions. Have the whole family begin to take them today.

"Hood's Sarsaparilla has been used in our family for some time, and always with good results. Last spring I was all run down and got a bottle of it, and as usual received great benefit." Miss BEULAH BOYCE, Stowe, Vt.

Hood's Sarsaparilla promises to cure and keeps the promise.



THE OLD TIME WORLD'S CHAMPION TROTTER GEORGE M. PATCHEN, 2.23 1-2.

Island, Nov. 21. The first heat was easily won by the game little mare in 2.28, but in the second she was driven out by Patchen in 2.23, and although she finished first in the third she was set back for a break near the wire, and the heat given to the stallion; time 2.24. The race was then postponed on account of darkness and never finished. This closed the campaign of George M. Patchen for the season of 1859.

The first appearance of George M. Patchen in public in 1860 was in a race against Ethan Allen, then king of trotting stallions, at Union Course, May 16, for a purse of \$2000. The race was regarded with unusual interest, as both horses had many warm friends, and all were confident of the ability of their favorite to vanquish the other. They had met once previously, in a wagon race, at Union Course, L. I., Oct. 28, 1858, when the elegant son of Black Hawk distanced Patchen the first heat in 2.28, on account of a bad break by the latter. During the season of 1859, the big stallion had improved wonderfully, and when brought to the wire on this occasion was altogether a different animal from the one defeated in 1858. It was a magnificent race, but the beautiful little Morgan was defeated in straight heats, time, 2.25, 2.24, 2.23. Seven days later they again trotted to wagon over the same course, Patchen taking three heats in 2.27, 2.25, 2.21. These performances justly gave Patchen the title of champion trotting stallion of the world.

On the sixth of June following Patchen met Flora Temple at Union Course, and, although beaten by her, she was compelled to trot the greatest race of her life up to that period, Patchen forcing her out in 2.21, 2.24, 2.23, and was right at her shoulder at the finish in every heat. It was the only race during her brilliant career on the turf in which the gallant little mare was compelled to put in two heats in 2.21, 2.21, although she had previously acquired a record of 2.19. Six days after the race she met again at the same place, in a race of two-mile heats to wagon, best two in three, and Patchen won in short order: time, 4.53, 4.57.

On the Fourth of July following, Patchen and Flora trotted a race at Suffolk Park, Philadelphia, which was won by the mare in 2.23, 2.21, 2.27. The last heat was trotted in the mud. About this time George M. Patchen became the property of William Waltemire of New York, the reported consideration being \$20,000. Six days after the above race these two noted trotters started a race at Union Course, L. I., which was won by Flora in 4.51, 5.01. The result might have been different, had not a parcel of roughs rushed upon the track, throwing missiles in Patchen's face just as he was passing the mare. It was a dastardly proceeding and merited severe punishment.

Aug. 2, 1860, these two noted trotters again came together at the Union Course, and it was here that Patchen got his best record. He took the first heat in 2.23, and the next three in 2.23, 2.23, 2.23. Their next contest was at Franklin Park, Sag Harbor, Mass., Aug. 28, 1860, and resulted in a victory for the mare, which won first, third and fourth heats in 2.28 each; the second, which was trotted in 2.24, was a dead heat. Seven other races were trotted by Patchen and Flora Temple during that fall, six of which were won by the mare, but in the other, which was trotted in mud, she was distanced.

The two following seasons, 1861 and 1862, George M. Patchen was used for stock purposes, his fee being \$100. With the exception of a short time during the fall of 1862, he was at home at Bordentown, N. J., he stood at the home of his owner, near King's Bridge, N. Y. During the season of 1862, he got the stallion Seneca Patchen, owned at one time by Dr. J. W. Day of Waterloo, N. Y., in whose hands he proved a successful sire of speed. It is rather remarkable that none of the produce of George M. Patchen during these two years ever found their way into the 2.30 list, and that none of his sons got during that period, excepting Seneca Patchen, have yet produced a 2.30 trotter.

In the winter of 1863 Patchen was matched to trot six races against the black gelding Gen. Butler, whose record to saddle was then 2.21. Each of these races was for \$5000 a side. The first occurred May 27, 1863. Patchen won the first heat in 2.24, but being short of work lost the next three in slower time. June 3 they met in a race of two-mile heats, which was won by Patchen in 4.38, 4.38. Seven days later Patchen beat the gelding to wagon, best time 2.29, and on the eighteenth of the same month, in a race of two-mile heats to wagon, Patchen was again victorious, taking two heats in 4.57, 5.04. The three first of the above races were over the Union Course, but the last occurred at the Fashion Course.

On June 24 Patchen and Butler met at the last-named track in a saddle race, which was won by the gelding in short order: time, 2.28, 2.21, 2.23. July 1 they came together at the same place in a saddle race of two-mile heats, which Patchen won easily in 4.56, 5.01. At Watertown, N. Y., Sept. 30, Patchen beat Harry Clay to saddle, winning in straight heats, the fastest in 2.27. Shortly after this he was matched to trot in harness against Harry Clay, the latter to saddle, for a purse of \$2000. The race came off at Chicago, Ill., Oct. 21, and was taken by Patchen in straight heats; best time, 2.37. The friends of Harry Clay were not yet satisfied, and made another match for \$1000 a side, Patchen to harness, Clay to saddle. This was trotted at Chicago, Nov. 3, and proved an easy victory for Patchen, Clay being drawn at the end of the second heat,

which was won by his competitor in 2.32. This was Patchen's last appearance upon the turf. In the spring of 1864 he was placed in the hands of Dan Pfler, Long Island, N. Y., to be trained, but was taken sick on May 1, and died after a few hours' illness, from scrotal hernia. He was ruptured when a foal, hence labored under great disadvantages in his races. His early death was regarded by those who knew him best as a great misfortune to the breeding interests of the country. Many of the most noted speed-producing sires achieve their greatest success after passing their fifteenth year, the age at which George M. Patchen died.

The charge of lacking courage, so often brought against the Clays, was never breathed in connection with the name of George M. Patchen. He was recognized by all horsemen to whom he was known, as one of the greatest trainers, Hiram Woodruff, in his "Trotting Horse of America," speaking of Flora Temple and George M. Patchen, pays the latter the following high compliment:

About four races with Flora was enough to take a little of the fine edge off any horse that ever trotted with her if the pace was strong. It took more to get Patchen down completely within her power than it had ever done with any former horse. He stood a longer and stouter struggle with her than any other trotter had done. He beat her more heats than any other horse ever did, and most of the heats in which he beat her were very fast and close. He met her, too, at the golden prime of life, when she had just reached the full maturity of her extraordinary power. When everything is considered, I am under the impression that Patchen is the best horse that Flora Temple ever contended with; and that, therefore, their names must go down linked together, as those of the best mare and best stallion that have yet appeared.

Patchen never met an opponent that he did not at some time defeat, and although pitted against the best of his day, succeeded in winning thirty-four heats in 2.30 or better. The majority of the most distinguished animals that George M. Patchen got were from mares that were highly bred. The fastest and gamest trotter that he got was Lucy (2.18). She won sixty-two heats in 2.30 or better. He got three other trotters that took records in 2.30 or better, and the total number of heats that they won was nineteen. The dam of Lucy was by May Day, a son of Sir Henry, by Sir Archy. The most successful son of George M. Patchen as a sire was Seneca Patchen, that was owned for several years by Dr. J. W. Day of Waterloo, N. Y. Seneca Patchen is the sire of seventeen trotters and one pacer that have taken records in standard time. His dam, Toot, was by Hollenbeck's Sir Henry, a son of Sir Henry, by Sir Archy.

Godfrey Patchen, that stood for several years in this vicinity, and was the sire of Hopeful (2.14), was another son of George M. Patchen, that, considering his opportunities, was quite successful as a sire. His dam was by Harmon's Jersey Henry, another son of Sir Henry, by Sir Archy, and his second dam was by John Richards, a son of Sir Archy.

Although the descendants of Henry Clay have been denounced time and again as quitters, there have been some just as game trotters among them as have ever been found in any trotting family. George M. Patchen (2.23) was one of them. There was no better judge of a first-class trotter in his day than the noted trainer Hiram Woodruff. Speaking of George M. Patchen, this celebrated reinsman said, "He was, beyond all doubt, in my mind, the best horse that ever competed with Flora Temple (2.19), that was then the world's champion trotter."

Those who take the trouble to look up the blood lines of the trotters that show the Clay cross in their pedigrees will find that close to the Clay cross in nearly every instance is a thoroughbred cross. Green Mountain Maid and Beautiful Hells are good examples. The fastest trotter produced by any daughter of Sayre's Harry Clay was Harrietta (2.08). Her sire, Alcyon, was full of running blood, and her third dam was by Mambrino Patchen.

St. Julien (2.11), that at one time held the world's champion trotting record, was by Volunteer, out of Flora, by Sayre's Harry Clay. Volunteer's dam, Lady Patriot, had a strong infusion of the thoroughbred close up, through her sire, that was a descendant of Blucher. The dam of Flora was by a son of an imported French horse, and her second dam was by an imported Arabian stallion known as Cox's Arabian. The descendants of American Clay as a rule are as game as any man can wish. The dam of American

Calf Scours Cured

Hood Farm Calf Scour Cure and Digestive Powder

"My calf was taken 24 hours after birth with scours of a watery, foamy nature, was weak and unable to suck. I used your medicine and he was cured in three days."—J. E. BURN, Hanover, Pa.

"Hood Farm Calf Scour Cure and Digestive Powder cured three bad cases of scours in my herd. I find the Digestive Powder gives the calf strength and appetite."—L. C. RAYBURN, Hebron, Conn.

Two sizes of each—\$1 and \$2.50. Prepaid to any railroad express point in the U. S., 25c. additional. On orders amounting to \$10 we prepay express. Send for circular on Calf Scour Cure. Mention this paper. C. I. HOOD CO., Lowell, Mass.

Clay was by imported Tranby. The Clays, as a rule, are not surpassed for pure trotting action by any family yet produced.

Notes from Washington, D. C.

Mr. William A. Taylor, the assistant pomologist of the Department of Agriculture, who since the first of July last has been in direct charge of the field experiments of that division, is now engaged in planning the campaign for the coming season.

"A work to which we shall give particular attention," he said, "will be the preparation of fruit for internal and export trade. This will not only consist of proper facilities for handling in transit, but also at the large cities, where means are at hand for storing these fruits properly."

"Our reason for doing this is to obviate the glut on the market of fresh fruits in the late fall and early winter, and keep them so that they may be placed on sale gradually, and when they can command higher prices, not only at home, but abroad. In connection with this work, of course we have studied refrigeration of fruits here in the United States, on shipboard and in foreign countries."

"Fruitmen and owners of refrigerating establishments had complained to us that pears do not seem to keep even in cold storage, and asked for an investigation of the subject by our department. This we did early in the season. The Kaizer pear, one of the very latest maturing varieties grown, and which is raised to a greater extent than any other pear south of New Jersey, was used in our experiments. We procured about one hundred bushels from an orchard between Washington and Baltimore, and placed them in storage here in this city. One-half of this amount was forwarded for storage immediately after picking; the balance was allowed to remain on the farm for ten days and ripen before being stored."

"These lots were then again divided in half, one portion being stored in a room having a temperature of from 32° to 35°, and the other in a temperature of from 35° to 38°, which the storage men considered a good temperature for pears. We thus had to make observations on sixteen different experiments in order to determine results under various conditions. From time to time we made observations with always one result, which showed that the pears which were stored immediately after picking kept remarkably well, only three per cent. of them at a given date having signs of decay, whereas of the delayed ones thirty per cent. were bad. This was shown conclusively, not only with those in the higher temperature, but in the lower as well, while the question of wrapping made little or no difference."

"At various times we took sample lots from each portion and took them out into a room with a varying temperature, such as would be found in a grocery, and contrary to the general belief that fruit stored for a long time at a temperature of 35° to 38° would keep longer than that stored at 32° to 35°, we found the latter temperature to prove the more suitable."

"Of course this was only one test and in one region, but we will this year make observations and tests from other sections of the country. However, be it as it may, this one experiment shows conclusively the value of storing fresh pears, gradually turning them into the market at a season when they would be relished by all. The Bartlett pear, which is grown perhaps more than any other in the United States, has but a short season, and if means were at hand to prolong the time there would be a consequent greater value to the crop, for at present the Bartlett comes into market with a rush, and is here but a short time, thus realizing a very low profit to the grower."

"I might add right here," Mr. Taylor continued, "that the Illinois Station is making experiments along the lines of a construction of a cool storing place for fresh fruits, wherein ice or other cooling agents might be employed to keep the temperature low. Fruitmen, I believe, should all have such a place to keep their products until such time as they might be able to ship to the storage house."

The wise farmer is not hasty at the approach of spring and the appearance of young green blades in the pasture in taking his stock off dry feed and allow them to feed on the young shoots. If this practice, however, is resorted to, there is likely to be but one ultimate result, and that is that when the time comes when the stock will need green forage, there will be none to be had, as was the case last year. The herd will trample down the soft ground, and in case of an early dry spell, the surface of the soil will be baked hard as stone, in which no grass can grow."

In conjunction with the debate in the House of Representatives, on the proposed twenty per cent. reduction of duties on goods going from Cuba, the Census Office bulletin, just issued, on the value of the tobacco crop, is interesting. For the year ending December, 1899, farms to the number of 808,317 in the United States, aggregating 1,101,484 acres, produced 868,163,275 pounds of tobacco, having a value of \$56,993,003.

It is a pretty good thing, after all, to have a little piece of land and live upon it. It costs \$100,000,000 a year to govern New York, which is figured at \$27 a head annually, the cost of governing each man, woman and child. GUY E. MITCHELL.

Literature.

It was to be expected from the promise given by Miss Lunt in "Lords of the North" that her next novel would be one of interest; but that it should be one of such marked distinction as "Heralds of Empire" would have been unreasonable to expect. Yet her latest work embodies all the elements of success that are required to make its author among the foremost writers of the day. "Heralds of Empire" occupies a new field in literature. Miss Lunt has introduced a new character. Published by D. Appleton Company, New York City.

"The Silent Pioneer," by Lucy C. McEwen, author of "Julety," with illustrations by W. E. Mears, published by Thomas Y. Crowell & Co., New York City. The story of Kentucky in the days of Boone. The book is complete and has an exciting situations. All this and more is presented amid a wealth of color and a steady stream of exciting adventure.

Charles Major is perhaps the most popular teller of love stories among living novelists. In "Dorothy Vernon," an earlier novel, "When Knighthood was in Flower," time and distance stood him no hindrance under his spell. He has the happy facility which brings home to the heart the spirit of gallant times and the imperious call of youth's springtime. Written from first page to last, this novel worthy to rank as one of the best pieces of American fiction and as literature. Major has discovered what potent ingredients are language and style in the creation of romance, and he has mastered them.

All praise to him for this; it cannot fail, moreover, to add to his popularity, thus earning for his willingness to labor and prove two rewards, one more honest than the other. The romance is the chief concern with this author; it is the very root of his art, as the flower of his gift. This is a historical tale, so far as period, scene and minor characters are concerned. Indeed, even his hero and his heroine, and the romance itself, are based upon historic fact. But we are, after all, ever in the land of lovers, the best of realms in which to dwell in romantic fiction. Dorothy Vernon is an Elizabethan maid, but there is in her a suggestion of willful young womanhood as it reveals itself through the ages, a touch of the eternal feminine in her degree of authority for the sake of the man she loves. She is not a historic figure, interesting on account of its distance from the women of today; she is flesh and blood of this twentieth century, all gentleness and roused fury in defence of her all; love and strength and fortitude under persecution and opposition, a living, loving, lovable girl, ready to risk all for the sake of "him," a living woman of today. She will appeal more powerfully, we think, to the popular imagination than did even the heroine of the earlier book, because she is depicted in more vigorous lines and stronger colors, because Mr. Major has mastered his trade.

The elopement of Dorothy Vernon with John Manners is an historic episode. Haddon Hall belongs to this day to their descendants, the Dukes of Rutland. Queen Elizabeth visited the castle; the state chamber, where she rested overnight, is still shown to visitors in its original state. John Stuart, too, enters the story, to rouse the jealousy of Dorothy. In short, the lover of the account of the story in fiction may rest contented with the story; but he will probably care little for that once he has been caught by the spirit and freshness of the romance. Published by the Macmillan Company, New York.

The spring books of Lee & Shepard, Boston, include some very interesting volumes, and ought to have large sales owing to their quality. "King for a Summer," by Edgar Pickering, is full of daring deeds and exceptional situations, a story of Corsican life and adventure. Many instructive illustrations by Warwick Goble. The story takes you to a romantic mountain home, brings you to a terrible quarrel where a duel is fought. A bit of wild life, the attack on the cave, the frightful experiences and the stealing of the hangman. It goes on to tell the story of joining the insurgents, where life is severe. Then a perilous adventure where "we" are arrested. With many thrilling acts the tale carries you through some very blood and thunder, and yet they are quite new well told and ought to interest. The writer deserves the credit of bringing the most out of his characters.

A charming story is that entitled "The Colburn Prize," by Gabrielle E. Jackson, and published by J. F. Taylor & Co., New York City. It is a tale of mutual sacrifice of two friends. The last and best work of the gifted author of "Denise and Ned Toodles" and "Pretty Polly Perkins." Nine beautiful illustrations add to the charm of this exquisite gift book.

Devitt's "Dreamer" by W. E. Allen, a novel published by D. Appleton & Co., New York, is a very clever tale. Contains much that interests.

An Indian reservation in the far West is the scene of Hamlin Garland's last novel, "The Captain of the Gray-Horse Troop." Captain Curtis, who has been ordered to the post to succeed a man suspected of using his office for his own aggrandizement, falls in love with the niece of that same man, a willful girl, who influences her father in the Western Senate to remove the captain from the horse troop, and does all else that she can to make the path of her son a thorny one. But this is, of course, before her reason forces her to see the excellent are the methods the new captain has introduced into the reservation, and before her own love enlists her on the pathies on the side of the newcomer. Captain's courageous handling of a crisis in reservation matters is well described, and the fair treatment of the natives, are the story closes, its proper attention to the hands of the novelist. The book is written with the verity and comes to expect of Mr. Garland, and to his reputation as a capable, profound, clean entertaining novelist. Published by Harper and Brothers, New York City.

"Mrs. Seelye's Cook Book" contains a valuable information on all subjects connected with the management of a well-run household. What servants of every grade should wear about their work, what they should eat, and what they should do, are fully specified, also those who are curious to know how great houses are run in smoothly running order, and the matter here presented in more relation than can be learned from the popular press of the Sunday papers; for the knowledge was assimilated from first-hand experience, from tried experience, inasmuch as the compiler of the book has been for many years at the head of what is perhaps the best and most reliable intelligence office in New York. This work, however, must be read mainly to the well to do. To test many of the recipes offered would call for a well-stocked purse, and to give any such a luncheon or dinner as is here outlined would be too much for the average cook. It is people to qualify for the insolvent court, still, the book contains a few excellent recipes, and all its illustrations are excellently instructive. Published by The Macmillan Company, New York City.

Practical Poultry Points.

error in growing chickens is to keep them in one flock. Twink is a small bird, larger than thirty in a yard or two, or forty in a yard four times over. This is especially true if the yards are selected according to their size. All sizes and ages are mingled together, and the result is a question of "the rich getting richer and the poor getting poorer." The big ones not only keep the smaller ones out of the feed trough, but they also cover them in other ways. If they are separated the little fellows may have a fair chance, and if not they will always be the smallest specimens.

We expected to find poultry advancing in sympathy with or because of the high prices of other meats, but fairly liberal receipts and slow demand have kept it about steady. Fresh-killed Northern and Eastern chickens, large roasters 18 to 20 cents, broilers 20 to 25 cents, and common to good 12 to 15 cents. Fowl, extra choice 14 to 15 cents, common to good 12 to 13 cents. Spring ducks in at 25 cents a pound. Pigeons, choice \$1.25 to

Horticultural.

Orchard and Garden.

iven to the larger orchards, and we think
his is true even in Maine. But let our
farmers once get the idea that orcharding
can be made profitable, and that it can be
made to pay for every dollar's worth of fer-
tilizer, and every hour of labor spent on it,
and liberally as any cultivated field on the
farm, and we will see a change.

Professor Powell advises Maine orchard-
ists to stop looking all over the world for
new varieties of apples, as those they have
now beat the world for clearness of skin,
high quality of fruit, large size and remark-
able keeping qualities. Take the Baldwin,
Hubbardston, Huriburt, Nothead, King,

LORD OF THE DANCE
LOUIS L. GRAHAM
1900

SINGLE COMB BE

Domestic and Foreign Fruit.

VEGETABLES IN BOSTON MARKET.

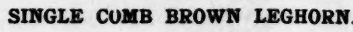
There seems to be a brisk trade in the vegetable market, with prices running high and firm for good stock. Old beets \$1.75 a box and new at \$2 to \$2.50 a dozen. Carrots 5 cents a box for old and 75 to 90 cents a dozen for new. Parsnips 40 to 50 cents a box, flat turnips the same. Yellow turnips 15 to 85 cents a barrel for St. Andrews, \$1.10 to \$1.25 for native. White French carnion at \$1.50 to \$1.75. Native onions \$1.30 to \$1.75 a box for solid stock, new 50 to 90 cents a dozen bunches, and Baltimore 75 cents to \$1 a basket. Bermuda \$2.15 to \$2.25 crates and Havana 1.75 to \$2. Egyptian 2.75 to \$3 a sack. Leeks are 75 to 90 cents a dozen and chives 40 to 50 cents, with radishes 25 to 35 cents.

Artichokes \$1.50 a dozen

Potatoes are in good supply, and trade is quiet, but prices keep going higher. Aroostook Green Mountaints \$1.03 to \$1.05 a bushel, Hebrons \$1 to \$1.03, Rose 95 to 98 cents, Dakotas Red 83 to 85 cents. York State White 90 to 95 cents for round, 85 cents for new. New Brunswick Green Mountaints and Delaware 90 cents to \$1, Rose 90 to 95 cents, Silver Dollars 85 cents. Prince Edward Island Chenangoes 85 cents. Berardville sweet potatoes fresh \$3 to \$3.75 a barrel, to quality.

The Hay Trade.

There are still liberal offerings of hay in the markets, but a large part of arrivals is of the undesirable and we might most say unmarketable grades for this season of the year, when every one wants to get only the best that is to be had, and the market may be called dull on all but the time and No. 1 grades. They hold firm about last week's rates, but lower grades are accumulating and weak at quotations, with some concessions made to effect sales. Boston received 440 cars of hay last week.



Boston Fish Market.

—Receipts of five kinds of stock at five interior markets for the first quarter, were 7,831,882 head, against 7,646,572 in 1901 and 7,412,703 in 1900. The greatest gain was in receipts of calves, the

New York Markets.

or 112-pound sack. Shallots 75 cents a hundred bunches. New Orleans leek 2 per hundred. Florida beets \$1.25 to \$1.50 a hundred. \$4 to \$6 per hundred bunches. Charleston \$4 to \$7 and New Orleans \$2 to \$3 per hundred. Carrots, 100 bunches. Charleston \$4 to \$5, and New Orleans \$3 to \$5. Florida celery \$1.25 to \$3 a case. Asparagus, Colossal \$3 to \$4 per dozen, extra large \$2 to \$2.75, prime \$1.25 to \$1.75, and culls 75 cents to \$1. Radishes, Norfolk 40 to 75 cents a basket. Rhubarb \$1.50 to \$2.50 per 100 bunches. White Southern squash 75 cents to \$1.50 a box. Russian turnips, Jersey 90 cents to \$1 a box, and Canada \$1 a barrel.

Cabbages a little lower than last week. A crate \$18 to \$22 a ton, \$1.50 a barrel crate. Florida new \$2 to \$3.25 a crate and Charleston \$2 to \$3. Norfolk kale 40 to 65 cents a barrel. Spinach \$1 to \$1.50 a barrel, \$1 to \$1.50 a bushel, Baltimore 50 to 60 cents and Long Island 40 cents for one-half barrel basket. Long Island and Jersey \$2 to \$2.50 a barrel. Spinach, Norfolk, 75 cents to \$1.25 a barrel, Baltimore \$1 and Long Island \$1 to \$1.25. New Jersey \$1.50 to \$2 a barrel, eastern \$1.50 to \$2.40. Romaine, Bermuda, 50 cents to \$1 a crate and Florida \$1 to \$1.50 a half-barrel basket. Florida egg plants, half-barrel crate \$1.50 to \$3. Cucumbers \$2 to \$3 a basket and tomatoes \$1.50 to \$2.50 a half-barrel for Florida, \$1 to \$1.50 for Havana.okra from Havana \$2 to \$3.50 a carrier. Florida string beans wax \$1.50 to \$2.50 a barrel basket, \$1 to \$2 a crate, green \$1.50 to \$2.50 a barrel basket, \$1 to \$1.75 a crate. Peas, Florida crate 60 to 75 cents. Charleston and Savannah baskets \$1 to \$1.50.

Hothouse products dull, lettuce poor to choice \$1.50 to \$2 a case. Cucumbers, Charleston fancy 90 cents a dozen. Eastern 1.00 to 75 cents. Radishes \$1.50 to \$2 a hundred bunches. Tomatoes fair to fancy to 20 cents a pound and mushrooms 20 to 25 cents.

The apple receipts are not heavy, but the trade is dull, and prices generally a little lower. Good to fancy Baldwin and Spy \$4 to \$5 a barrel, Ben Davis and Gano \$3.75 to \$4, York Imperial \$3.50 to \$4.50, Wine Sap \$3.50 to \$4.25, Roxbury Russets \$4 to \$4.50.

JAMES BROTHERS, PUBLISHERS, BOSTON.

THE ANGORA CAT.

[illegible]

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Now it's the turn of the trout and salmon to exhibit the dangers that encompass popularity.

Technology has at last got the raw material of a "yard," and a very good big one into the bargain.

Bostonians can now resume their enjoyment of the isles of Boston from the deck of the Nantasket steamer.

Mr. Carnegie has sailed for Europe. The opportunity is open for the ship he sails on to procure a library.

Mr. Kitson has apparently designed a statue of General McClellan that has real decorative as well as human interest.

There might be more licenses, but there seems to be no danger that the supply will be insufficient to meet the demands of local palates.

The semi-annual meeting of the antiquarians has, as usual, given Bostonians an opportunity to hear some uncommon reminiscences.

And now genius has supplied man with a buttonhole that he can carry in his pocket, and apply wherever a buttonhole happens to be needed.

Everybody will wear a panama hat; and those who don't will wear imitations, to the great and not wholly unnatural disgust of those who do.

There is a bracing flavor of salt in the story of the Rochester merchant who was shanghaied in New York city and now turns up in England.

The young men who told their parents they were going fishing, and then went to New York, may have had in mind the old nursery rhyme about going in swimming.

Despite the intense relations now existing between rival baseball organizations, "signing a player" does not mean that the organization that catches him either brands or tattoos.

To those who remember their reading of "Faust," the picture of Washington society leaders dancing the Walpurgis is even more interesting than the recent children's party with society in bibs and tuckers.

The "hayseed" has been eliminated from the legislative hall, and the victory of common sense over the very dead past may be celebrated in any amount of soda water on any day in the week.

Gael, we are told, the name recently bestowed upon a very young Bostonian of obvious parentage, was corrupted by the middle ages to Goethil. To what, we wonder, will it be corrupted by Gael's future youthful associates.

A Maine sheep raiser is preparing to feed all his sheep on fish. If there is an truth in the old theory of a fish diet, some of the flock must inevitably find their way into the ranks of the educated sheep that travel with the circuses.

We are distinctly a humiliated nation; but at the same time it is just as well to avoid additional future humiliation by keeping our heads over it. By that process we may eventually find out just how humiliated we really are.

The immigration officer who held up Richard Harding Davis as a possible immigrant is an illustration of the fact that the world is large, and there are people in it who never even see the photographs of celebrities.

We are used to conventions of one kind and another, but we must confess that the whist convention seems more than ordinarily serious. But then the game is not one to be taken lightly, save under almost sacrilegious circumstances.

Being sent to Coventry will take on a new meaning if there is truth in the report that Lady Godiva is to ride about again during the coronation period. We suspect that possibly an American press agent has been engaged to boom that historic locality.

Lake Superior has its magnetic mountain, and the Arabian Nights is substantiated as a veracious narrative. The deposits of iron ore along Lake Superior, according to the story, are not powerful enough to attract the ship, but they deflect compasses, which answers the same purpose so far as the subsequent wreck is concerned.

An American woman, Professor Boyd of Smith, is the first of her sex to excavate in Greek territory. We suppose that others are to do the actual digging, although the impression made by the report is that Professor Boyd has been given a little shovel and told to go ahead.

The coming reunion of Brigham Young's descendants promises to snatch the laurel crown from all previous affairs of like nature—even Solomon's in all its glory, if the Solomon family had ever faced the inevitable danger of bringing all the buds and branches together in one place.

No more Sunday funerals in Louisville, Ky. This may appear distinctly as a new kind of blue law, but the real reason is more satisfying. It seems that the good people of Louisville have got in the way of saving up their funerals for the Sabbath, with the result that the ministers are sometimes almost unable to see their way from one end of the day to the other.

A New York court has awarded a verdict in favor of a matrimonial agent who claimed not to have been paid the stipulated commission. We doubt, however, that Cupid would have recognized this agent. To which the agent might answer that, in an age when all affairs are specialized, Cupid had best attend to his own particular variety of matrimony.

Another millionaire has taken to traveling through the country at a fifty-mile-an-hour gait as a means of recreation. Is it possible that modesty is at the bottom of the present craze for rapid motion, and that our millionaires are so tired of being looked at that their only joy in life is to travel about so fast that no one can see 'em?

While at first glance Dr. Rainford's criticism of college students as being too lax in their judgment of intoxication may seem to hit a prominent nail squarely on the head, it should be borne in mind that the entire attitude of civilized man toward intoxication is much less lenient than it used to be. The undergraduate, as a matter of fact, reflects this general feeling.

Bishop Potter, it appears, is human enough to suffer from the cumulative effect of speaking one's mind in public. A college town is not the most natural place in the world to talk about the "overcrowding of the American home with ostentatious display," nor does the "stench of cost, cost, cost" rise readily from the burning of the average professorial income.

It is almost time for the North Atlantic Squadron to put on its party manners, preparatory to receiving the Gauls. Meantime, it looks as if the Rochambeaus and Lafayettes were going to receive a comparatively quiet reception. But it ought to be none the less sincere on that account, and those who are received quietly often carry away a more genuine impression of their entertainers.

Our Out-of-Season Luxuries.

With increasing wealth in the large cities has come increasing luxury. It is luxury in diet, in attire, in home furnishing, in every condition of living, but particularly in diet.

New York must have strawberries at Christmas, spring lamb in February and the thick rich cream of the summer season all the year around. It has the money to pay for its luxuries out of season and must have them.

The vast extent and varying climate of Uncle Sam's great territory, and the development in rapid communication by rail between far-distant regions, supply the demand for it. It is possible now to put on sale in Broadway the most perishable fruits and vegetables from the most distant gardens within seventy-two hours after picking, and in perfect condition.

The Carolinas alone send north every winter 12,000,000 quarts of strawberries. California pours across its borders little less than 200,000,000 pounds of fresh fruits. New York alone absorbs each winter 4,000,000 packages of Southern vegetables.

But these only supply a part of the demand. Long-distance railroad trains are delayed by winter storms. The rich man's market must be independent of accidents like that.

Then, also, even the season of the South has its limitations. It cannot supply all that is needed when the Northern season is over. So science comes to the rescue. By its aid man has now deliberately set at defiance all the laws which govern the seasons of growth.

You can have strawberries in June or November or March—any month at all now. You can have summer cream all the year around, asparagus or new peas when you will.

Hothouse cultivation, first of plants and now of animals also, has revolutionized the old-fashioned agriculture of our fathers, and today the new style of truck growing and stock raising supplies the table of wealth with almost anything that is in demand there at any time and under any conditions of weather.

George F. Walsh wrote interestingly in a recent issue of the Scientific American of the remarkable development of winter farming in the last decade. It is now an industry far more profitable and successful than ordinary summer gardening or farming.

Today it is of national importance, and adds millions of dollars annually to the wealth of the country. And the industry is as fascinating as it is profitable.

Naturally, one thinks first of truck gardening, either under glass in the North in winter, or along the belt of Southern States, when this subject is broached. Mr. Walsh says, "but winter farming is not by any means confined to even this field. Winter dairying has become in the last five years one of the most profitable sources of farming, and it is pursued by the most progressive dairymen of the country with great success."

By means of the silo, succulent food is stored away for winter feeding that produces almost as fine milk and cream as the June grass. The milk and cream in winter time are worth so much more than in summer that the dairymen find it profitable to provide good winter quarters for the best cows and to feed them with the best food.

Following the example of the dairymen, the poultry farmer has also changed his methods. By means of the incubator and brooder, winter and spring broilers are produced today in enormous quantities for the table.

Winter poultry is in fact, today, according to Mr. Walsh, about the only product of the chicken farm that actually pays a good profit, and the high prices obtained for spring chickens and broilers out of season have caused complete changes in the poultry farming industry. An attempt is now being made to induce the hens to lay in winter instead of spring, and though at present the results obtained are not entirely satisfactory, extensive experiments in winter feeding and winter breeding have produced results which encourage the poultryman to believe that eventually breeds of hens will in time be reared which will lay their eggs in winter instead of summer.

This sounds like the purest fiction, but it is solid fact. Hothouse lambs have now been an important part of the winter diet of rich epicures for several years. Breeders have established enormous houses in which these delicate infants can be reared and fattened through the coldest of winter weather.

The industry is highly profitable, and it is increasing every year. In future, so experts in this odd stock raising believe, hothouse lambs may become an ordinary part of the regular winter diet, even of people of moderate means.

Hothouse fruits and vegetables multiply in quantity and quality every year. The industry is expanding so rapidly that the annual winter supplies of these delicacies are running up into thousands of tons. Around Boston there are several hundred acres of land covered with glass where fruits and vegetables are raised for the winter markets.

New Jersey and Long Island are also centres of this industry. In both, hundreds of acres are now cultivated under glass right through the winter.

These hothouse products bring high prices all through the winter, and it is so arranged that from two to four crops are raised annually on the same land. In the spring, when the weather grows warm, the glass sashes are removed, and the plants for the summer markets are raised as easily as if the land had not been producing all winter.



HON. W. MURRAY CRANE,
Governor of Massachusetts. From his latest photograph by Chickering.

When the cold autumn frosts come, the glass sashes protect the new crop that has been planted for the Christmas holiday season. Then, when these winter products are harvested, seeds for an early spring crop are sown, and by the time Easter is here fresh vegetables are again ready for picking.

The truck products raised under glass in winter receive the most modern intensive culture. The soil is of the richest, well heated by steam pipes, moistened properly and sometimes lit artificially at night time by arc lights. The electric light tends to stimulate the growth of certain vegetables, and the season of maturity is frequently hastened by its aid.

The profits from this business often run from 50 to 80 per cent. on the investment. During the rough winter weather, when Southern truck cannot reach the markets, prices for vegetables raised under glass soar to almost fabulous prices. And in spite of the great number of acres of land covered with glass and devoted to winter farming, the supply hardly keeps pace with the increasing demand, and there is ample opportunity for further expansion.

Winter farming in the Southern States, where the climate is warm enough to produce out of doors the summer products in demand in the Northern markets, has spread with phenomenal rapidity in recent years. In some of the States land which ten years ago was worth only a few dollars an acre now sells for \$200 or \$300 an acre.

But in this change the development of railroad transportation has played a great part. The construction of refrigerator cars, which enable growers to ship strawberries and tomatoes from Florida and Louisiana to New York and Boston in midwinter, gave a great stimulus to the industry. The railroads helped it along by putting on fast freight trains, and adding refrigerator express cars to their passenger trains, and each year the transportation facilities are improved.

Each year, also, the source of supply is extended. First, the Carolinas, Norfolk and Georgia tropicalized this industry. Then Florida entered the field, and finally the gardens spread along the Gulf and included those in the Mississippi Valley. California made special efforts to ship her fruits and vegetables to Eastern markets in cars made for the purpose, and now Texas and even Mexico are entering the field with their peculiar farm products.

There are some sixty thousand refrigerator cars engaged in this traffic in the winter season, distributing the fruits and vegetables of the tropical and semi-tropical gardens and farms to the tropical cities of the North, South, East and West. The best of these cars are scientific products of modern genius, and they carry their loads of fruit as carefully as a Pullman palace car transports its millionaire occupants.

All told, the winter farming which supplies the cities with summer fruits and vegetables in the cold season represents an industry mounting up into many millions of dollars. Mr. Walsh points out that all this is pure gain for the farmers and land owners, for the soil which is now brought under contribution to feed us with a winter diet of fruits and vegetables. And the creation and expansion of the industry represents wealth added to the country just as surely as if new gold mines had been discovered which yielded annually a dozen million dollars worth of the precious metal.

Dairy Notes.

The complete census statistics of dairy matters show that of the 5,739,675 farms in the country, 4,514,210 report dairy cows and dairy product, and that in 1899 the total dairy product had a valuation of \$472,363,235. The number of dairy cows was 17,139,674. The receipts for dairy products sold aggregated \$281,619,938 and products consumed on the farm were valued at \$190,739,392.

There were produced from the dairy cows reported a total of 7,266,392,674 gallons of milk, an average of 424 gallons per cow. Of this milk 2,124,915,342 gallons were sold, for which the farmers received \$84,842,292. The farmers also report the sale of 20,768,682 gallons of cream, for which they received \$8,838,776.

Farms reporting 3,617,440 report manufacture of butter and 15,670 report the manufacture of cheese. The farms reporting butter manufactured 1,071,745,127 pounds, of which 518,139,026 pounds were sold, for which the farmers received \$86,006,446.

Farms reporting cheese manufactured 16,372,330 pounds, of which 14,692,542 pounds were sold, for which the farmers received \$1,342,454.

Perhaps we ought not to question the accuracy of the census reports of the United States, but those who are familiar with the method of taking them know that very few farmers keep an exact account of receipts and expenditures in any branch of their farming, and least of all in the amount of dairy and poultry products used in the family. If

they have larger interests in other business, as in grain, stock raising or lumbering, they are apt to declare that "the cows and hens do not pay their keeping, and they are kept just to please the women folks, who always want milk and eggs."

If they have a poultry dinner once a week and plenty of eggs three or four times, with milk and butter at every meal, beside the amount used in cakes, puddings and pies, they would be likely to say that there was no profit in keeping poultry, and to estimate the value of dairy products used in the family about the figures given above, which does not much exceed \$42 a year for each of the 4,514,210 farms reporting dairy products. This would amount to pay for one quart of milk a day, and something less than two pounds of butter a week in a Massachusetts village. There are few of the farms which average about four cows each, which would not use more than twice that amount, to say nothing of cheese, cream and dairy products used in making pies, puddings and cakes, or the appetites of children and hired help are not what they were when we were on a dairy farm.

But the sales amount to only about \$16.50 per cow, and with an addition of \$11 per cow for dairy products used on the farm, the total is but an average of about \$27.50 per cow. If that is correct the income from a cow does not equal the cost of the feed she consumes as an average of all the cows in the country. Even in the Western States few estimates place the cost of food at less than \$30 per head, and in the older States it will average much higher if they are well fed. The report above gives over \$11 per cow as the cost of the products of the farm used, which would pay for but one ton of hay in the lowest markets in the United States. Perhaps in some of the Gulf States where a certain class allow their cows to forage all winter, and use no grain, they may not use a ton a year of hay or other dry fodder, but those are not the sections where many cows are kept.

We know a man who has the milk production of every cow on his place weighed every day that her milk is called fit to use, say after the calf is three or four days old. It is not a matter of guessing with him when it comes to filling up the census report. He has cows that produce in a year, not 424 gallons, but more than fifteen hundred gallons, and two-year-old heifers that give about seven hundred gallons. His milk is sold to a factory for producing condensed milk, and the income from most of the older cows is \$100 a year or more, and although a liberal feeder, he does not force them for a record. He has to buy some grain to feed about thirty head, but the products of his farm, in almost the backwoods of Maine, fed to his cows, have a value there of more than \$11 per head, or twice that. In these estimates no account is taken of the value of the calves, and often they have no value, as the milk taken by them before they are fit for slaughter has more value than the price the calves sell for. In the case of a well-bred calf from a pure-bred sire, the heifers, at least, even if only grades, have a value when born, and can be reared on skim milk or separator milk at a handsome profit.

The fact that nearly all the men who are engaged in dairying, and who keep good stock, and adopt modern methods of handling their milk and its products, are thrifty, successful farmers who have their buildings in good condition; their land fertile and productive, and free from weeds and mortgages, is the best evidence that the estimate of the census bureau of a production of 424 gallons of milk, or of \$27.50 worth of dairy products in a year, is too small for even the average cow, and we admit that there is a wide margin between the average and the best. But if one-half is added to their figures we think with all deference to those who gather their statistics they would be much nearer correct.

A. X. Hyatt, well known as a practical dairymen, sends the following statement of facts to the Prairie Farmer: Three cows were given no salt from June 20 to July 15. From July 14 to July 18 they gave but 454 pounds of milk. From July 18 to Aug. 1 each cow was given four ounces of salt a day, increasing the milk flow 110 pounds, or up to 564 for the two weeks. While neither yield is a large one, being less than eleven pounds per day in the first fortnight, and a little more than thirteen in the last triad, the increase of nearly 24 pounds of milk per day for four ounces of salt is a good one, being more than twenty per cent. He says that when he was young it was the custom to give cattle and sheep their salt in the pasture on Sunday morning, and they seemed to count the days, for while on other days they went directly to the pasture to feed, on Sunday they lingered around the gate until the salt was given them. On a professor, whom he quotes, recommends that fattening steers should have an ounce of salt a day at the beginning, one and a half ounces at the middle and two ounces at the close of the fattening period.

When we kept cattle near the seashore,

where a northeast storm seemed to carry a salt spray for miles inland, we did not feel it necessary to salt them in the pasture, but farther inland and away from the salt breeze we think it right that both cattle and sheep should have it regularly, so that they will not eat too freely of it when they do get it. Professor Henry says that experiments with dogs and sheep show that a moderate addition of salt to the food increases the activity of the secretion of the body juices and their circulation, and consequently increases the protein consumption of the body. It was our practice to salt the mash for our towl, about to the same extent as if we intended to eat the food ourselves, but too much salt will cause a looseness of the bowels.

If those who are afraid of the bacteria in milk are going to insist that all who handle it or care for the cows shall be smooth shaven, lest bacteria should be lurking in their beard, the men should also insist that the cows should also have a clean shave every day, as their hair is likely to contain more bacteria than could be in the beard or moustache of the man, who usually washes his face at least once a day. If this was insisted upon they might also, with equal justice, claim that he should have his head shaved and remove all of his clothing before going into the presence of the cows. When we first saw this suggestion of removing all beard from the men in the stable we thought it a sample of the wit of some cheap paragrapher, but some papers seem to be taking it very seriously.

Lewis County (N. Y.) Farm Notes.

The past winter has been an exceptional one for this section, and was not attended with the usual extremes of cold and deep snows of some winters.

The month of December was mild and open, and one considerable freshet was experienced, which carried off several bridges in different parts of the county. The month of January was a good one for business, the snow being of an even and moderate depth, which made good sleighing, and as a consequence, large quantities of lumber, pulp and wood were handled and marketed; but the snow began to come in earnest Feb. 2, and continued to come throughout the month, with colder weather, and was, indeed, a very severe month.

March came in like a lamb and continued mild and warm throughout the month, and operations for making maple sugar commenced about March 1, and a large run of sap was had, but coming so early the greater part of our sugar makers were taken unawares and lost the run in consequence; but the season was favorable for the production of a large crop of both sugar and syrup, with good weather the greater part of the time for boiling, so that the quality made has been exceptionally fine. The average yield has been put down at two pounds to the tree, although we have heard of as high as four and five pounds per tree having been made. Syrup at wholesale brings fifty cents per gallon, and sugar eight and nine cents per pound.

These factories, as a rule, opened for the reception of milk the first of April. Factories that have been running during the winter have sold their make of March cheese as high as eleven cents per pound, and the outlook is good for future prices.

The milk stations are now paying \$1.15 per hundred for milk. The prices were high during the winter, lessening the production of cheese, which leaves a clear market for that product.

The veal calf business is carried on quite extensively by our dairymen, and prices have been good up to the last few weeks, when the price dropped to 44 cents. It is a loss to feed sweet milk at those figures when butter brings 25 and 28 cents per pound in market.

The prices of all kinds of milk feed still remain high with no prospect of a decline in prices, corn meal being worth about \$27 per ton. Shippers have been paying as high as sixty-five cents per bushel for potatoes, the supply fairly equalling the demand for that product. Meadows have, as a rule, come through the winter in good condition. New seedling looks well, and if we have plenty of rain with no freezes promise a good yield of hay.

Farmers are doing their plowing and drawing manure, and we hear of a few pieces of grain being sown the past week; farmers are fully up with the season with their work.

Grass is getting a good start for the time of the year, with a fair prospect, if the weather is favorable, for farmers to turn their young stock to pasture from the first to the tenth of May. F. D. AUSTIN, Copenhagen, N. Y., April 29.

New York Farm Notes.

In Lewis County we have been enjoying very favorable weather for farmers to do their plowing. The weather has been cool and dry most of the time since the first of April.

Our maple sugar season commenced early in March and ended in the early part of April. The yield of sugar will compare favorably with any season for several years past. The quality of sugar and syrup made is generally of the best. During the time of sugaring the weather conditions were favorable. A large percentage of those owning sugar orchards make the product into syrup. Our local dealers buy the syrup and ship it to city markets, where it is a luxury, and where it commands a good price. Syrup has been selling here for fifty-five to seventy-five cents per gallon, averaging about sixty cents.

At this writing grass begins to "green up," and appears promising for a good crop under favorable conditions. Farmers have commenced sowing oats and peas where their lands are dry. The canning factories, located at Lowville and Turin in this county, induce the farmer to put in a large acreage of peas and corn for that purpose. Those living within reach of the factories make it a paying business.

Our cheese factories about the county are starting up all along the line. Fodder

cheese is selling readily for eleven cents per pound. The milk stations along the line of the railroad are still being well patronized. Some of the contracts will expire by the first of May, while others continue throughout the entire season. The price for milk that is shipped to New York city has recently taken another drop, \$1.03 per hundred now being the price of the milk at the milk stations. A portion of the milk is shipped and a portion is made into cheese, as there is more milk than is wanted for shipment.

The veal-calf business goes briskly. A short time since one local buyer shipped calves to New York, purchased of over a hundred individual farmers at five cents per pound.

Dressed pork brings eight cents per pound. Oats for seed are selling at sixty cents per bushel. All farm products bring good prices. Farmers are now putting seed into the ground, but the weather is still cool, and it appears to be plenty of fodder in the fields to take the stock through until grass comes.

P. E. WILSON, Deer River, Lewis Co., N. Y., April 29.

The Narragansett Park Association received a magnificent list of entries for the two \$10,000 stakes, the "Park Breeders' pace" and "Roger Williams 2:14 trot," to be raced for at the Providence Grand Circuit meeting, there being 126 horses entered in the two noted events. The association has engaged Albert H. Merrill to give the word.

Eclipse & Windmills

We have just overhauled an Eclipse Windmill that has not had a cent put out on it for repairs for 16 years! IS THIS THE KIND OF MILL YOU WANT?

TANKS AND TOWERS. PUMPS AND PIPE. Estimates submitted on Complete Outfits. Send for Catalogue. CHARLES J. JAGER CO. 174 High St., Boston, Mass.

"A Gold Mine On Your Farm"

the title of the most complete and comprehensive illustrated treatise on the subject of spraying, with tables of cost and formulas. The result of actual use at the leading Agricultural Experiment Stations, called the SPRAYATOR, the "Gold Medal" machine at the World's Fair. It is a free. Write for it. SPRAYATOR CO., Buffalo, N. Y. or London, Can.

NO HUMBUS & STRENGTH. Humane Swiss Stock Market and Cattle Dealers. The subject of all farm work, making 40 different cow marks, all with same blade. Reference to the SPRAYATOR, the "Gold Medal" machine at the World's Fair. Write for it. SPRAYATOR CO., Buffalo, N. Y. or London, Can.

THE SPRAYATOR. Awarded Gold Medal at American Exposition. Adopted by Russian, Canadian, Belgian and Louisiana Governments, and is now in use in all Colonies. N. Y., N. J., Ill., Ohio, Pa., Cal., Ontario, Manitoba, Quebec, Nova Scotia, N. B., and all other parts of the world. First prize over steam in test by International Commission. Write for it. SPRAYATOR CO., Buffalo, N. Y. or London, Can.

FOR THIRTY YEARS our Force Pumps have been the best in New England. The BUCKEYE PUMP works easily, throws a steady stream, does not drip or freeze. It is built to last and hence is a valuable purchase. We also sell Wind Mills, Tanks and Gas Engines, besides all Water supply Goods. SMITH & THAYER COMPANY, 236 CONGRESS ST., BOSTON, MASS.

STILL LEADING THE LINE OF CREAM SEPARATING APPARATUS. MOSELEY'S OCCIDENT CREAMERY. Has stood all tests. Defies all competition. Most popular than ever. In use everywhere. We can't resist you. MOSELEY & PRITCHARD MFG. CO. Write us, mentioning this paper. CLINTON, IOWA

Big Cut in Prices. DROPPED IN PRICES. For STRAWBERRY PLANTS. THIS SEASON. C. S. PRATT, Reading, Mass.

200-Egg Incubator for \$12.50. Perfect in construction and action. Hatches every fresh egg. Write for it. GEO. H. STAHL, Quincy, Ill.

PAGE THEY ALL SAY there is "Just as good as the Page." Do not buy sound pretty well for "THE PAGE." PAGE WOVEN WIRE FENCE CO., ADRIAN, MICH.

SAVE YOUR FRUIT BY SPRAYING. and use the Best Pumps. These are for sale by THE CHARLES J. JAGER COMPANY, 174 High St., Boston, Mass. Catalogue and Special Price-List mailed on request.

The Best Carriage Offer. Our carriages and harness, sold direct from our factory at wholesale prices, are the best in the world. We have sold more carriages direct than any other house in the world, because ours is the most Liberal Offer and Complete. Written guarantees ever made by any Responsible Manufacturer. Our goods have a reputation that we will uphold. Our plan is fully explained in our illustrated catalogue. SENT FREE—No matter when, where, or how you buy, you need this catalogue as a guide. It describes vehicles and harness fully, and quotes lowest prices ever offered. Write for it. Western Office and Distributing House, St. Louis, Mo. THE COLUMBIAN CARRIAGE AND HARNESS CO. Write to the nearest office—ST. LOUIS or COLUMBIA.

SLUG SHOT. Kills Currant Worms, Etc. Used successfully 22 years. Sold by Seed Dealers and Merchants. For pamphlet on Bugs and Blights, address B. HAMMOND, Fishkill-on-Hudson, N. Y.

The Markets.

BOSTON LIVE STOCK MARKETS.

ARRIVALS OF LIVE STOCK AT WAREHOUSES AND BRIGHTON.
For the week ending May 7, 1902.

Shotes
Cattle Sheep Swine Fat Hogs Veals
This week... 3511 7853 175 23,745 3413
Last week... 3343 4661 119 29,305 3037

Prices on Northern Cattle.

BEEF—Per hundred pounds total weight of hide, tallow and meat, extra, \$6.00; first quality, \$5.50; second quality, \$5.00; third quality, \$4.50; fourth quality, \$4.00; fifth quality, \$3.50; sixth quality, \$3.00; seventh quality, \$2.50; eighth quality, \$2.00; ninth quality, \$1.50; tenth quality, \$1.00; eleventh quality, \$0.50; twelfth quality, \$0.25.

COWS AND YOUNG CALVES—Fair quality \$2.00; extra, \$2.50; first quality, \$3.00; second quality, \$2.50; third quality, \$2.00; fourth quality, \$1.50; fifth quality, \$1.00; sixth quality, \$0.50; seventh quality, \$0.25.

STOCKS—Thin young calves for farmers: Yearlings, \$10.00; two-year-olds, \$14.00; three-year-olds, \$22.00.

SHEEP—Per pound, live weight, 24¢; extra, 25¢; sheep and lambs per head, in lots, 43¢; 44¢; 45¢; 46¢; 47¢.

FAT HOGS—Per pound, Western, 71¢; live weight, shot, wholesale, 1¢; retail, 22¢; country dressed hogs, 90¢.

VEAL CALVES—Single, 40¢; country lots, 41¢; Haverhill—Brighton, 42¢; country lots, 43¢.

CALF SKINS—60¢; 120 lb. skins, 40¢; 140 lb. skins, 45¢; 160 lb. skins, 50¢; 180 lb. skins, 55¢; 200 lb. skins, 60¢; 220 lb. skins, 65¢; 240 lb. skins, 70¢; 260 lb. skins, 75¢; 280 lb. skins, 80¢; 300 lb. skins, 85¢; 320 lb. skins, 90¢; 340 lb. skins, 95¢; 360 lb. skins, 1.00; 380 lb. skins, 1.05; 400 lb. skins, 1.10; 420 lb. skins, 1.15; 440 lb. skins, 1.20; 460 lb. skins, 1.25; 480 lb. skins, 1.30; 500 lb. skins, 1.35; 520 lb. skins, 1.40; 540 lb. skins, 1.45; 560 lb. skins, 1.50; 580 lb. skins, 1.55; 600 lb. skins, 1.60; 620 lb. skins, 1.65; 640 lb. skins, 1.70; 660 lb. skins, 1.75; 680 lb. skins, 1.80; 700 lb. skins, 1.85; 720 lb. skins, 1.90; 740 lb. skins, 1.95; 760 lb. skins, 2.00; 780 lb. skins, 2.05; 800 lb. skins, 2.10; 820 lb. skins, 2.15; 840 lb. skins, 2.20; 860 lb. skins, 2.25; 880 lb. skins, 2.30; 900 lb. skins, 2.35; 920 lb. skins, 2.40; 940 lb. skins, 2.45; 960 lb. skins, 2.50; 980 lb. skins, 2.55; 1000 lb. skins, 2.60; 1020 lb. skins, 2.65; 1040 lb. skins, 2.70; 1060 lb. skins, 2.75; 1080 lb. skins, 2.80; 1100 lb. skins, 2.85; 1120 lb. skins, 2.90; 1140 lb. skins, 2.95; 1160 lb. skins, 3.00; 1180 lb. skins, 3.05; 1200 lb. skins, 3.10; 1220 lb. skins, 3.15; 1240 lb. skins, 3.20; 1260 lb. skins, 3.25; 1280 lb. skins, 3.30; 1300 lb. skins, 3.35; 1320 lb. skins, 3.40; 1340 lb. skins, 3.45; 1360 lb. skins, 3.50; 1380 lb. skins, 3.55; 1400 lb. skins, 3.60; 1420 lb. skins, 3.65; 1440 lb. skins, 3.70; 1460 lb. skins, 3.75; 1480 lb. skins, 3.80; 1500 lb. skins, 3.85; 1520 lb. skins, 3.90; 1540 lb. skins, 3.95; 1560 lb. skins, 4.00; 1580 lb. skins, 4.05; 1600 lb. skins, 4.10; 1620 lb. skins, 4.15; 1640 lb. skins, 4.20; 1660 lb. skins, 4.25; 1680 lb. skins, 4.30; 1700 lb. skins, 4.35; 1720 lb. skins, 4.40; 1740 lb. skins, 4.45; 1760 lb. skins, 4.50; 1780 lb. skins, 4.55; 1800 lb. skins, 4.60; 1820 lb. skins, 4.65; 1840 lb. skins, 4.70; 1860 lb. skins, 4.75; 1880 lb. skins, 4.80; 1900 lb. skins, 4.85; 1920 lb. skins, 4.90; 1940 lb. skins, 4.95; 1960 lb. skins, 5.00; 1980 lb. skins, 5.05; 2000 lb. skins, 5.10; 2020 lb. skins, 5.15; 2040 lb. skins, 5.20; 2060 lb. skins, 5.25; 2080 lb. skins, 5.30; 2100 lb. skins, 5.35; 2120 lb. skins, 5.40; 2140 lb. skins, 5.45; 2160 lb. skins, 5.50; 2180 lb. skins, 5.55; 2200 lb. skins, 5.60; 2220 lb. skins, 5.65; 2240 lb. skins, 5.70; 2260 lb. skins, 5.75; 2280 lb. skins, 5.80; 2300 lb. skins, 5.85; 2320 lb. skins, 5.90; 2340 lb. skins, 5.95; 2360 lb. skins, 6.00; 2380 lb. skins, 6.05; 2400 lb. skins, 6.10; 2420 lb. skins, 6.15; 2440 lb. skins, 6.20; 2460 lb. skins, 6.25; 2480 lb. skins, 6.30; 2500 lb. skins, 6.35; 2520 lb. skins, 6.40; 2540 lb. skins, 6.45; 2560 lb. skins, 6.50; 2580 lb. skins, 6.55; 2600 lb. skins, 6.60; 2620 lb. skins, 6.65; 2640 lb. skins, 6.70; 2660 lb. skins, 6.75; 2680 lb. skins, 6.80; 2700 lb. skins, 6.85; 2720 lb. skins, 6.90; 2740 lb. skins, 6.95; 2760 lb. skins, 7.00; 2780 lb. skins, 7.05; 2800 lb. skins, 7.10; 2820 lb. skins, 7.15; 2840 lb. skins, 7.20; 2860 lb. skins, 7.25; 2880 lb. skins, 7.30; 2900 lb. skins, 7.35; 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Our Homes.

The Workbox.

CROCHETED EDGE.

So many pretty corset covers are made now that this thread lace furnishes a good trimming. Spaces are made for baby ribbon to be run in.

Linen thread, No. 50, or even finer may be used, also a fine steel crochet hook.

Make a chain the length required. Work the leaves in the center first.

1st row—One quadruple treble into a stitch, 12 chain, pass by 6 stitches, 1 single into a stitch, work up the chain with 1 single, 1 double, 1 half treble, 5 trebles, 1 half treble, 1 double and 1 single; (*) 21 chain, 1 single into same stitch last row was worked into, work up next 11 stitches, 1 quadruple treble into next, 11 chain, pass by 6 stitches, 1 single into next, work another leaf as previously described, work back with 1 treble into 10th of 21 chain; repeat from (*) for entire length.

2d row—Eleven chain, 1 single into stitch the treble was worked into, work up the chain as described, 6 chain, 1 quadruple treble under the treble, 17 chain, 1 single into top of treble, work another leaf as described, repeat from beginning of the row.

For the heading: 3d row—One treble into a stitch, 2 chain, pass by 2 stitches, and repeat from beginning of the row.

4th row—Cross trebles which are worked thus: Work as for a double treble into a stitch, work off 1 stitch, pass by 2 stitches, work a treble into the next, work off the rest of the loops 1 at a time, 2 chain, 1 treble into center of cross treble, 1 chain, pass over 1 stitch, repeat from beginning of the row.

5th row—Like third row.

Edge of lace: 1st row—Like third row of heading.

2d row—One treble in a stitch, 2 chain, pass by 2 stitches, 1 treble in the next, 5 chain, work back with 1 single into the first, 3 chain, 7 trebles each separated by 1 chain under loop of 5 chain, 3 chain, 1 single under loop of 5 chain, pass by 2 stitches, 1 treble in next, 2 chain, pass by 2 stitches, 1 treble in next, 2 chain, repeat from beginning of row.

3d row—One double in center stitch between 2 scallops, 5 chain, 1 double under 4 chain, 5 chain, pass by 3 trebles, 1 double under next chain, 5 chain, pass by 2 trebles, 1 double under next chain, 5 chain, 1 double under next loop of 4 chain, 5 chain, repeat from beginning of row.

EVA M. NILES.

Moors Stuff their Brides.

Obesity is regarded among the Moors as the crowning beauty of woman, and no maiden is considered suitable for marriage until she is nearly as fat as Fustat. As soon as a Moorish maiden is engaged it is the bounden duty of her parents to fatten her up like a lamb for the sacrifice. And this is where man intervenes to thwart the plans of nature. The male is generally slim, wiry, sinewy, all bone, muscle and thwack, and he likes his mate to be as complete a contrast to himself as possible.

So she has to train for it and to persevere until she becomes a woman of four dimensions, an unwieldy bolster of solid flesh, wherein the soul is entombed forever. Every morning she takes the soft part of her wheaten bread and rolls it into long, round pieces about twice the length of her little finger and of the girth of her thumb.

After each meal she eats three or four of these, gradually increasing the dose. At first, while the spirit is willing and the flesh still weak, she is allowed to wash them down with milk or green tea. Later on liquids are tabooed. Most girls manage in time to put away fifty or sixty of these aids to obesity every day. By the time the wedding day comes round, the bride has become wholly lost to her slenderness, and after a few years they have irretrievably forfeited the female form divine and resemble huge sacks of down.

One of those ladies having emigrated to Spain, her friends there had to have a huge crescent hewn out of the dinner-table to accommodate her. In Morocco tables are not yet the fashion, no more than knives and forks.

Fainting.

The direct cause of fainting is a diminished circulation of blood through the brain. To revive a person who has fainted, it is necessary, therefore, to alter this condition as quickly as possible. In order to do this the individual should be laid quite flat, the head on a level with the body, so that the feebly acting heart will not have to propel the blood upward. The neck and chest should be exposed, fresh air admitted freely, water sprinkled on the face, and stimulating vapors, such as ammonia, held at intervals to the nostrils. When there is difficulty in restoring animation, friction over the region of the heart with the hand or a rough cloth should be applied vigorously.

Cigarette Smoking.

The question of the harmfulness of cigarette smoking is continually coming to the front. Dr. H. F. Fiske, principal of the Northwestern Academy in Evanston, Ill., has recently stated that only two per cent. of those addicted to cigarette smoking in the school has been able to reach the first grade, while in the lowest grade there was a percentage of such smokers of fifty-seven.

A mass of evidence has been brought against the cigarette as a most injurious factor in undermining the health, and especially of seriously affecting the nervous system of persons accustomed to smoking them to a large extent.

There can be no doubt that cigarette smoking is exceedingly harmful to the young, and probably smoking of any description in adolescence or adult age is calculated to be opposed to sustained mental effort.

That, however, cigarette smoking in itself is more harmful than are the other modes of using tobacco has never been proved; indeed, the experience of those who have made a study of the matter points to an opposite conclusion. The experiments made by the Health Department of Chicago, some five years ago, failed to reveal any of the peculiarly insidious and noxious properties in several brands of cigarettes examined, which it is often stated they possess, and the analysis undertaken in the laboratory of the London Lancet three years ago, of many brands, both American and English, reached similar results.

Smoking, when young, is harmful in many ways, and undoubtedly, as Dr. Fiske says, tends to weaken and deaden the mental faculties.

For this reason, therefore, cigarette smoking is to be condemned in the young, and not because the cigarette *per se* is especially injurious.

Seventy-two Thousand Girls Learning to Sew.

Seventy-two thousand young girls are learning to sew in the public schools of New

York city. It is in the night and day schools of the congested East Side districts that one finds the big percentage of these seventy-two thousand embryo dressmakers. They come, for the most part, from basements and from tenements, and the eagerness with which they embrace the opportunity offered to them is almost tragic—the wonder is that such an important part of their education was for so long neglected.

One of the most remarkable things about the system is the rapidity with which the pupils are able to learn. Those of us who learned to sew in the old-fashioned way, at home, can recall vividly the long, weary hours spent before we could even run a straight seam. As to learning to cut and fit and make a dress, that was something which took long months, if not years, of apprenticeship.

But the public sewing-school teacher with her scientific methods, has done away with all that tediousness. She teaches not by example, but by precept.

In the earlier stages the proper manner of holding the needle, threading it, making a knot and the adjusting of the cloth are taught.

Then come the stitching lessons. Running, back-stitching and overhand stitching are part of the drill. There are exercises in buttonhole work and cross seams, or feather-stitch.

Every detail of this work must bear the closest scrutiny of the teacher and supervisor before the next step, the cutting and drafting of garments, is permitted.

To train the eye in the matter of accuracy in length, shape and position of stitches, geometrical designs are marked upon cloth. They are then traced with colored cotton, and every little departure from perfect work is thus brought prominently into view.

Cutting and fitting are taught by means of a system which, although illustrated by miniature models, imparts instruction so thoroughly that pupils can easily make underwear and simple street costumes for their own wear.

"Dressmaking in all its branches is included in this curriculum. Though only half a waist is made at first, the boning, facing, sewing of hooks and eyes, the binding of the seams, the making and adjusting of the stock collar must be *comme il faut* or the "skirt" lesson is not forthcoming.

In the night schools (under the charge of the board of education), the work is carried forward to the making of full-sized garments.

Some of the pupils possess a fair knowledge of sewing and come for the benefit of the dressmaking courses, but in many cases the teachers find it necessary to begin at the beginning, with primary school instruction.

Still, she is an exception who has not learned at the end of the term to make a complete dress. Some have even gone so far as to attempt genuine "tailor-made" coats and wraps with excellent results. Raglans, Eton jackets and rainy-day suits are some of the products of this winter's work. Little brothers have been taken with trousers and jackets, made from discarded garments of fathers or uncles, and one little boy of rather at Easter in a natty sailor suit of dark garnet, trimmed with gilt braid. His little twin sister is to have a bright blue frock fashioned out of a left-over bit from the big sister's winter gown, which is a smart affair and sets off the wearer's trim figure admirably.—New York Herald.

Burns from Celluloid.

Commenting on the fact that so many articles now in common use are made from celluloid, Alexander Ogston calls attention to the evident fact that celluloid articles of uncertain composition and dangerously explosive quality are everywhere sold, and are in constant use, and that the conditions under which they may ignite in varying circumstances cannot be fully inferred from experiments regarding their ignition point made in a physical laboratory. (2) Badly manufactured celluloid ignites at variable temperatures, too low for it to be safely used. (3) It follows that restriction should be imposed upon the sale of all such articles which do not sustain, without ignition, a temperature equal to that sustained by well-manufactured celluloid. (4) It is worthy of consideration whether all celluloid articles of personal use, and such others as might give rise to fires, ought not to be compelled to have the word "ignitable" conspicuously imprinted upon them. (5) If the suggestion to render celluloid incombustible by the addition of some chemical should be practicable it would be the best solution of the difficulty, and such an addition ought to be made compulsory by legislative enactment.

How, When and Where to Rest.

Rest does not mean absolute inaction, but a change to mental occupation, if muscular work has been indulged in, and *vice versa* if mental work has been indulged in. We should endeavor to sleep eight hours out of twenty-four under the most favorable conditions.

As to when:

1. In a comfortable bed on a firm hair mattress and pillows, or cotton mattress and pillows, as both answer the same hygienic purpose.

2. Among our books three hours a day if our work is muscular, or an out-of-door active life if mental, the same amount of time.

3. To some complete change of locality, to others a change of climate, and to still others of environment, and so on and so on.

As to when:

1. As nearly as possible one day in seven.

2. An annual vacation.

3. After excessive mental or physical exercise.

But always remember that too much work means waste, wreck, and too much rest means rust, death.—Health.

Wisdom Teeth.

These teeth sometimes come into the mouth very late in life. We had a patient once who out of the two upper wisdom teeth after the age of sixty years. It is not an unusual thing, for people to suffer very severe and protracted pains during the erupting, or rather on account of these teeth, particularly those on the lower jaw. There is frequently so little room between the second molar and the angle of the jaw, that, in their endeavor to take their proper places, they are tipped forward, and the crown is forced against the root of the second molar; its progress is then stopped, and an irritation is set up which often for months, perhaps for years, is the seat of most excruciating neuralgic pains over the face, head, neck and shoulders, causing, perhaps, deafness upon the affected side, loss of sight, etc. Eventually, unless relief is obtained, an abscess will form, which will probably relieve the acute diffusive neuralgic pains, which then become localized in the neighborhood of the angle of the jaw

As pus begins to accumulate, the neck and face, swell, sometimes out of recognizable shape. Should the abscess "point" into the pharynx, the patient's life may be in great danger; it is then that prompt action is necessary to prevent the patient from choking to death before the swelling is stopped, and the discharge of the accumulated pus.—Health.

Removal of Wax.

Hardened wax in the external ear can often be removed readily by injections of warm water and soap, soda or ammonia. Many cases resist this, and require the softening effect of glycerine or sweet oil for a day or two before syringing. Do not bother with these long processes, but use a half-strength solution of hydrogen dioxide in the ear for about five or ten minutes. This will disintegrate the hardest plugs, and they can be removed with very little syringing. We have yet to see the case in which this process has caused irritation or inflammation. Do not use too much force with the syringe. Wipe the ear perfectly dry with absorbent cotton, and apply petroleum jelly to a small plug of cotton in the ear for one day after removal.

The Saliva.

The saliva is the secretion of three pairs of glands whose ducts empty into the cavity of the mouth. One of its functions is to keep the mucous membrane of the mouth moist, so that taste may be preserved and the tongue and other parts may move freely; but its most important office is a digestive one.

For mastication the food is finely divided, and then the saliva mixes with it, softening it and converting some of its starchy portion into a form of sugar, a change which is necessary in order that it may become absorbed into the system.

This mixture of the food and saliva is most important, and upon it depends in great part the comfort and sense of well-being which accompanies good digestion.

If the food is not thoroughly chewed, the unchanged starch passes into the stomach, where it cannot be digested, and remains there as an inert body, causing discomfort and heaviness. Deficient mastication also allows the food to enter the stomach in large pieces, and so its softening and digestion by the gastric juice are greatly retarded. This is an added factor in the dyspepsia of those who bolt their food.

But in order that its work may be properly done, the saliva must be healthy. Normal saliva is a clear, slightly opalescent fluid, neutral or faintly alkaline in reaction. Sometimes it becomes acid in reaction, and then loses much or all of its digestive power over starch. This action of saliva on starch varies according to the nature of the food containing the starch, and also, as said before, upon the thoroughness with which it is mixed with the food. Salt increases this action, but alcohol, tea, and to a less extent, coffee, retard or abolish it.

Sometimes the secretion of saliva is increased abnormally, this condition being known as salivomania. This is less common than it used to be the days when physicians, and their patients, too, looked upon mercury as one of the most precious of drugs and almost a panacea for physical derangements. Certain other drugs, such as iodine or bromide of potassium, may at times produce it, and it is an accompaniment of excessive nausea.

A diminished secretion occurs in fevers and many exhausting diseases; it may also result from nervousness or anxiety, and it is within the experience of nearly everybody that eating is almost impossible during a period of great mental strain, owing to the difficulty of moistening the food sufficiently to allow it to be swallowed.

Domestic Hints.

IRISH STEW.
Cut the lamb in two with boiling water and cook slowly in water. When about half cooked add one-half cup each of carrot and turnip, cut in small pieces, and one onion, sliced. Fifteen minutes before serving add potatoes cut fine. Thicken with flour. Season with salt and pepper and chopped celery.

DEVILED CHICKEN.
Pick, singe and clean a plump young chicken. Wash thoroughly. Rub over it one teaspoon salt, dot thickly with small pieces of butter, and place in a hot oven breast side up. Baste frequently. When the chicken is cooked, cut it in small pieces, and mix with enough cold water to cover, one teaspoon salt, one small onion, bolt until perfectly tender, and chop fine. As soon as the chicken is done remove it to a hot dish, skim the fat from the gravy, add one-half cup of hot water, and thicken. Turn the giblets into the gravy and cook a few minutes; then pour over the chicken and serve. Garnish with parsley.

PROGS' LEGS WITH MUSHROOMS.
Cut the legs at the thighs to divide them, wipe dry and fry in a little butter. Lift them from the pan and fry in a little butter until browned. Take out the mushrooms, pour a little cream into the pan, thicken with an egg yolk or two, season with pepper and salt, and pour over the legs and mushrooms which should be arranged on the same dish.

LADY LOCKS.
Cut puff or other rich pastry rolled into a thin sheet into strips about three-fourths an inch wide. Wind this round and round upon lady lock sticks, keeping the space between the paste quite narrow. Dispose on a baking sheet, and bake in a moderate oven. Remove the pastry from the sticks and fill the hollow centres with heavy cream, sweetened and flavored before whipping.

BOLLED BEREMUDA ONIONS AND HOLLANDAISE SAUCE.
Cook the onions till tender in salted water. Take up and pour over them a sauce made in this way: Cook together half a gill of vinegar and the same of water. Season with salt and white pepper, and when it is reduced about one half set the dish containing it into a pan of hot water over the fire. Stir in slowly then the beaten yolks of five eggs; beat with a wire egg beater till smooth and creamy, then add a small piece at a time, for ounces of fresh butter. Stir in if it is not perfectly smooth, and pour over the onions.

CHOCOLATE CUSTARD PUDDING.
Soften two ounces of chocolate over hot water, add two or three tablespoons each of sugar and hot water, and let cook until glossy. Add to one quart of hot milk. Beat the yolks of six eggs and the whites of three, add the rest of a cup of sugar and a few grains of salt, and dilute with the hot milk. Add two tablespoons of butter and two tablespoons of vanilla, and turn into a baking-dish. Bake standing on a folded paper in a dish of hot water. Cover with a meringue made of the whites of three eggs and six tablespoons of sugar. Return to the oven to color the meringue.

Hints to Housekeepers.
Stale bread that is broken and unightly can be used for brewis, bread puddings or in scallops. Toast or steam all that can possibly be used in such a way. Remove crusts before toasting. It makes a dish more palatable, and he crusts can be dried for crumbs or worked into a dressing. Slices of bread too ragged to be toasted may be trimmed into diamonds, fingers, oblongs, rounds or triangles for canapés. Cut smaller pieces in dice, narrow strips or squares or croutons. Fry for forty seconds in hot fat, or better light and brown in the oven. They are an attractive accompaniment for thick soups.

Before making a chicken salad, let the pieces

before being cut stand in some chicken or white stock for a few hours. It will make it deliciously moist and tender. Roast or boiled chicken, or even a bit of canned chicken, can be treated in this way and improved.

Hot milk is a most nutritious beverage. A real luxury, the value of which but few people know. Many who have abundance of milk never think of using it as a drink, or rather as an extender; for we should not milk instead of drinking it,—that is, take it in small sips. Why? Because the casein of milk, when it comes in contact with the acid of the gastric fluid, coagulates and forms curd; and, if swallowed in large quantities at once, a curd is formed, which the stomach handles with difficulty. The gastric fluid can mingle much more readily with the small curds that result from sipping the milk.

To breathe correctly, keep the chest up, out, forward, as if pulled up by a button. Keep the shoulders, the hips, the feet, on one line. Hold the shoulders on one line with the hips. The observation of these directions will insure to golf skirts and rainy-day costumes a real dignity and picturesque effect. Breathe upward and outward, as if about to fly, drawing in the air with slow, deep breaths and letting it out gently.

Bacon cooked to perfection is bacon that has been sliced very thin and then chilled on the ice before going into the frying-pan. Always have the frying-pan smoking hot and put the bacon directly from the ice into the pan. Cook until clear and serve on a hot dish.

A recipe for good orange jelly is one ounce of gelatin, one pint of water, half a pound of loaf sugar, rind of two oranges and juice of eight, one lemon. Let it gradually come to a boil and boil for ten minutes. Strain it through a cloth. A few drops of cochineal improves the color.

Fashion Notes.

* Lace gloves will again be *de rigueur*. They are shown in white, cream and black, from the short lengths, that come as low as \$5, to the long and exquisite webs of real lace that cover the arm, from \$25 to \$125. But only beautiful hands and arms can bear them attractively.

* More threads of gold chains, with a rich pendant or gem hung like bangles from the chain, form a far more attractive necklace than the heavy "dog-collar" design, unless the neck is long and slender.

* Ornaments wrought of the fresh-water pearls are growing in high favor, and no wonder, as nothing more unique and exquisite in beauty can be imagined than the flower brooches, the petals of which are of these pearls.

* The aristocratic gardenia (or Cape jasmine) is again in favor, as displayed both by florists and in artificial flowers. In nature it is of rare fragrance and exclusive form; in art, exceedingly "respectable" and rich looking. While speaking of floral "fads," a pretty novelty is to wind a sheet of pussy willow into a large bird's nest, line it with gray Southern (or Spanish) moss, and fill it with a pot of Chinese primroses, or one-half with a mass of English violets, the remainder with white Roman hyacinths. It remains a unique window or table decoration.

* Real bargains are to be had in many first-class shops in richly embroidered and applique effects of "dress garments" at the demi-season "marked down" prices. These goods are thoroughly up-to-date, and are shown in yokes, vests, revers, boleros, medallion and bands of the most artistic handwork and fancy weaves, and any woman of taste and tact may herself transform a plain silk waist into a thing of beauty and grace by the addition of any one of these elegant ensembles.

* The ever-reigning shirt waist, that has developed into a dress-waist for all occasions, and is at once so useful and so beautiful, from the clean, fresh cambric, to the delicate lace, to the "fashion" of lace, chiffon and rich embroidery, is more "fashionable" than ever. That fact has made the demand for belts greater, as well as for more variety both in design and materials used in them.—N. Y. Tribune.

The World Beautiful.

Lilian Whiting in Boston Budget.

The one increasing purpose, running through the ages, which was the anchor of Tennyson's hope is this manifest. The upward trend of things and events is everywhere apparent.

Meanwhile the storm and stress of life are training the individual to higher efficiency, enlarging his outlook, and his soul-stirring outlook, and attuning his nature to grander ends. Failure in past ages means success in larger and compensation for disturbance in this venue is secured in the higher courts of heaven; this life is but a minor prelude to a major movement, and "death" but the resolution of discords into harmony.

"The modern doctrine of evolution is only the last of a long chain of sequences," says Benjamin Kidd in his new and most remarkable book, "The Principles of Western Civilization," which the Macmillans have just issued, and which is one of the most significant and determining works of the age. Mr. Kidd has crystallized the highest results in thought of latter-day science and philosophy, and his book is a fountain of constant intellectual vitality.

Mr. Kidd finds the changes which the modern doctrine of evolution has already effected in the tendencies of the deeper processes of thought to exceed in import altogether any previously experienced. "Even its general results have a significance which immediately arrests the attention of the thoughtful observer," he says, and he notes that the Western intellect has at last passed through the initiatory phase of what Hegel called "the terrible labor of the self to knowledge." John Addington Symonds saw that certain tendencies—"the audacious speculation, the bold, explanatory studies, the sound method of criticism, the free range of the intellect over every field of knowledge"—he saw that these tendencies were slowly transforming our civilization. Mr. Kidd's argument in this book is that no school of thought has, as yet, fully perceived the extraordinary reach of the changes which the evolutionary doctrine is destined to accomplish. He finds that all the systems of political and social philosophy have had, heretofore, one leading feature in common; that they have revolved around it, as a fixed and central principle,—that of the interest of the individual and society. But he sees this point of view altered by a revolution, the significance of which he declares to be "without any parallel in the history of thought."

This revolutionary force is the law of Natural Selection. Mr. Kidd argues that if we accept it at all, as a controlling principle in the process of social evolution, we must, in the long run, accept it as operating in the manner in which it produces the largest and most effective results. And here is his theorem:

"Yet what we are now brought to see is that the overwhelming weight of numbers as of interests in the evolutionary process is never the present. It is always in the future. It is not the interest of those existing individuals with which all our systems of thought and of political science have concerned themselves, but the interests of the future, which will be the means of the evolutionary process in history. We are, in other words, brought face to face with the fact that in the scientific formula of the life of any existing type of social order destined to maintain its place in the future, the interests of those existing individuals, with which we have been so preoccupied, possess no meaning, except so far as they are included in, and are subordinate to, the interests of a developing system of social order, the evolutionary process of whose members are still in the future."

This is an impressive theory. When a principle of such reach in the social sciences emerges into view, we do, indeed, as Mr. Kidd so vividly points out, "look at all the processes of our civilization in an entirely new light. How far we are carried beyond all existing theories of the phenomenon of

modern democracy is at once apparent," he continues. Here is the entire scheme of life lifted to a new plane. "The controlling centre of the evolutionary process in our social history is, in short, not in the present at all, but in the future. . . . The majority with which the principles that are working out the process of our social development are primarily concerned is a majority that never votes. It is that silent majority which is always in the future."

This is but applying to social science the far-reaching, the all-pervading and eternal principles of ethics. It is but a new translation of the condensed significance in the words of St. Paul, that "our little affliction, which endureth but for a moment, worketh out for us a far more exceeding weight of glory." It is simply the amplification and the revelation on the philosophic and scientific side of the spiritual law, that sacrifices the temporal to the eternal. In one of the encyclical letters of Pope Leo XIII. we find these words:

"For, according to St. Dionysius, the law of divinity is to lead the lowest through the intermediate to the highest things. Not, therefore, according to the law of the universe are all things reduced to order equally and immediately, but the lowest through the intermediate, the intermediate through the higher. But that the spiritual exceeds any earthly power in dignity and nobility we ought the more openly to confess the more spiritual things excel temporal ones."

Therefore if the earthly power ever is to be judged by the spiritual power, but if the lesser spiritual power ever, by the greater. But if the greatest, it can be judged by God alone, not by man, the apostle bearing witness. A spiritual man judges all things, but he himself is judged by no one.

Mr. Kidd's reading of the great cosmic drama is one of marvelous power, insight and significant comprehensiveness. The work, called "Western Civilization," is a Roentgen ray, illuminating the social consciousness of the hour. We are ushered into a new world,—a world in which "the present and all its interests are by necessity inherent in the evolutionary process, destined in time to pass entirely under the control of the future and the infinite; we feel that we have traveled to the verge of the statement of a natural law of wide reach and significance."

The Dewey, Washington.

Gems of Thought.

"The noblest mind the best contentment has."—Spencer.

"The saint is a man who walks through the dark paths of the world, himself a light."—Felix Adler.

"We can offer up much in the large, but to make sacrifices in little things is what we are easiest equal to."—Goethe.

"Rightly viewed, no meanest object is insignificant. All objects are as windows through which the philosophic eye looks into infinitude itself."—Sartor Resartus, Thomas Carlyle.

"Perfection consists not in doing extraordinary things, but in doing ordinary things extraordinarily well. Neglect nothing. The most trivial action may be performed to God."—La Mere Angélique.

"What we can do is a small thing; but we can will and aspire to great things. Thus, if a man cannot be great, he can yet be good in will, and what he, with his whole heart and mind, love and desire will be, that without doubt he most truly is. His little we can bring to pass, but our will and desire may be large. Nay, they may grow till they lose themselves in the infinite abyss of God. And if we cannot be as entirely His as we yearn would be, be His as much as we may attain unto; but, whatever we are, be that truly and entirely; and what we cannot be, that be contented to be in a sincere spirit of resignation for God's sake and in Him. So shall you peradventure possess more of God in lacking, than in having."—John Tauler.

"Christ is the embodied harmony of God, and he that receives Him settles into harmony with Him. 'My peace I give unto you,' are the Saviour's words; and this peace of Christ is the equanimity, dignity, firmness, serenity, which made His outwardly-afflicted life appear to flow in a calmness so sublime. The soul is such a nature that, no sooner is it set in peace with itself, than it becomes an instrument in tune, a living instrument, discoursing heavenly music in its thoughts, and chanting melodies of bliss, even in its dreams. We may even say that when a soul is in this harmony, no fires of calamity, no pains of outward torment can for one moment break the sovereign spell of its joy. It will turn the fires to freshening gales, and the pains to sweet installations of love and blessing."—Horace Bushnell.

Brilliant.

Tomorrow's fate, though thou be wise, with Him. "My peace I give unto you," are the Saviour's words; and this peace of Christ is the equanimity, dignity, firmness, serenity, which made His outwardly-afflicted life appear to flow in a calmness so sublime. The soul is such a nature that, no sooner is it set in peace with itself, than it becomes an instrument in tune, a living instrument, discoursing heavenly music in its thoughts, and chanting melodies of bliss, even in its dreams. We may even say that when a soul is in this harmony, no fires of calamity, no pains of outward torment can for one moment break the sovereign spell of its joy. It will turn the fires to freshening gales, and the pains to sweet installations of love and blessing."—Horace Bushnell.

Our lives are songs;
God writes the words,
And we set them to music at leisure;
With Him. "My peace I give unto you," are the Saviour's words; and this peace of Christ is the equanimity, dignity, firmness, serenity, which made His outwardly-afflicted life appear to flow in a calmness so sublime. The soul is such a nature that, no sooner is it set in peace with itself, than it becomes an instrument in tune, a living instrument, discoursing heavenly music in its thoughts, and chanting melodies of bliss, even in its dreams. We may even say that when a soul is in this harmony, no fires of calamity, no pains of outward torment can for one moment break the sovereign spell of its joy. It will turn the fires to freshening gales, and the pains to sweet installations of love and blessing."—Horace Bushnell.

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With Him. "My

CONSTIPATION

Inward Piles, Fullness of the Blood in the Head, Acidity of the Stomach, Nausea, Heartburn, Disgust of Food, Fullness of Weight in the Stomach, Sour Eructations, Sinking or Fluttering of the Heart, Choking or Suffocating Sensations when in Lying Posture, Dimness of Vision, Dizziness arising suddenly, Dots or Webs before the Sight, Fever and Dull Pain in the Head, Deficiency of Perspiration, Yellowness of the Skin and Eyes, Pain in the Side, Chest, Limbs and Sudden Flushes of Heat, Burning of the Flesh, A few doses of

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Dr. J. C. Williams, N. Y.

Poetry.

STOLEN KISSES.

Nodding and bowing, the roses swing,
And grannie sits in the porch, asleep;
In life fingers her knitting lies,
While the birds and flowers a vigil keep.
Leaning right over the window sill,
Some one is telling the story old,
While a pretty maiden, with air demure,
Thinks it is never too often told.

Grannie's asleep—grannie's asleep,
Kisses and love-words are sweet to keep.
Thy too brightly and swiftly go,
There in the porch where the roses blow!
Blinking and winking the doze is o'er,
And grannie sits in the porch—awake!
And wide awake, be you very sure—
Another trust must the lovers make.
All the drowsy stitches are taken up,
All the soft love words are said tonight,
Robin must go on his homeward way,
With just one kiss 'neath the stars' soft light.
Grannie's asleep—grannie's asleep,
Kisses and love words are sweet to keep.
But take them and give them when grannie's asleep.

SWEET THINGS AWAIT.

Sweet things await thee, slumbering earth,
Outlying in the rain;
Though skies above thee darkly lower,
And chilling winds complain.
The neocromancer, shall charm
Thy torpid traces away,
And o'er thy pulsing breast shall break
The miracle of May.
Sweet things await thee, lonely wood,
Long scourged by tempests strong;
Life shall invade thy solitude—
A stir of wings and song.
Green leaves shall clothe thy boughs again,
A whispering throng alight,
And blossoms open at thy feet,
Like star-flowers in the night.
Sweet things await thee, pilgrim soul,
Thy journey o'er the sands
While beats the fierce, untamed light,
Along the desert lands.
Shall one day end beneath the palms
Where crystal fountains spring,
Where bubbles in shining tents,
The children of the King!
—Emma Herick Weed, in Youth's Companion.

NO ESCAPE.

How sweet the soporific ways
Of somnolent old ships
That sailed for days, and days, and days,
On transatlantic trips—
No ocean greyhounds, wild to race,
Along at hydrophobic pace!
The weary man of business then
Had time to be a boy,
And play at simple games again,
Or rest with grateful joy.
No leisure now to loaf or laugh,
Pursued by wireless telegraph!
From zone to zone, from shore to shore,
Till compass him around,
Till relaxation nevermore
On shipboard may be found.
Staccato, nervous, hasty and quick,
The restless telegraph will click!
As ships will print a daily sheet,
If he's a motor man,
His snapshot portraits he must meet
As calmly as he can!
The blithe reporter'll be there, too,
And life one glad, long interview!
The dawn may bring a home despatch—
"The children have the mumps."
He'll read at breakfast, snatch by snatch
Which way the market jumps.
And frantic fars he face would fight,
Will yell their "Extras" day and night.
—Anna Mathewson, in Life.

"HOWDY."

"Kind o' like to hear 'em say it—
'Howdy, howdy!'
Know who's who right there an' then,
That's the moral truth, now, men—
Put my trust right in the mumps."
"Man sez, 'Howdy!'"
"Yes, sir, sounds like o' times comin'—
'Howdy, howdy!'
Hez the left, an' makes you feel
Like you're really in the deal,
An' you're friends kin sort o' spiel,
—Sayin', 'Howdy!'"
"Folks all say it in Mizouree—
'Wal, wal, howdy!'
Hearty, honest, homely, gruff,
Gentle, kindly, yard-wide stuff—
Man sez it's good stuff—
'O' boy, howdy!'"
"Yes, sir, like to hear 'em say it!
'Howdy, howdy!'
Hez a cheery, earnest ring,
No put-on, the A-t thing,
Gives you own good-will a swing,
'N you say, 'Howdy!'"
Charles W. Stevenson, in Lippincott's Magazine.

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Miscellaneous.

Three in a Garden.

On the gray stone steps that led from one small lawn to another stood Cynthia. One foot had sought a lower step, the other lingered above, and the clinging gown of white, out of which peeped shoulders yet whiter, outlined the slender figure. The expression on the face under the large hat, bent downward by ribbon tied tightly about the neck, showed rapid attention to the notes of a violin, proceeding from behind the closely cropped hedge.

It was a picture a man might look upon for all a summer's day, and then not have his fill. But, from my seat beneath the trees, found no pleasure in it.

"Curse the long-haired, adding fellow!" I muttered, and began to walk across the lawn to Cynthia. But even when I stood below her, with my head doffed, I might have been a man invisible for all the notice I gained.

"Good day, Cousin Cynthia," said I.
The music from behind the hedge sobbed and wailed yet louder. I myself could have fancied a vine with more spirit; something to stir a man's blood—to fill him with the wild madness of the charge—aye, or even a rousing song to suit the passage of the wine flagon. But it was evidently to the taste of my cousin, for she still stood listening, and took no notice of my salutation.

"It is a fair morning," said I, at length, thinking she was not aware of my presence, and seeking to attract her notice.

"Your voice is not in harmony with these sweet strains, cousin," she replied, not favoring me with even so much as a look.

"In truth, the trying child would suit them better," I retorted.

Cynthia declined no reply, but drew aside as I ascended the steps and stood abreast of her.

"You treat me harshly, cousin," said I.
"I did not bid you come."

"Will you go up with me?" I inquired, pointing to the lawn above us.

"Nay, I am going down."
"To him," I added, bitterly. "You do, indeed, go down."

Cynthia laughed merrily.
"A witty cousin," she cried. "But possessing little courtesy, as, indeed, I found last night."

"I was angered, and did not pick my words."
"Indeed, but you did, cousin; you picked the most unpleasant."

"Perhaps I had occasion."
"Perhaps? Or not? It is of little consequence," exclaimed Cynthia, raising her white shoulders with a great show of indifference. "Good morning, cousin."

She held out her hand to me, and I touched it lightly with my lips. Then she ran down the steps, and began to cross the lawn below.

I have heard it said, and by those who should know, that none moved with more grace than my cousin Cynthia. And I, as I stood motionless on the steps, gazing after her, was suddenly filled with a very passion of love and longing. I would go after her—throw myself at her feet, and beg her to give me back her love, which but a day since I had thought was mine. But as my pride and my love fought within me, Cynthia had reached the hedge whence came the music. I fancied she half turned her head toward me; certainly she paused a moment. I ran down the steps.

But then she vanished behind the hedge; and immediately the music ceased. I turned away full of anger and despair, though as yet I failed to realize how that which had happened were possible, and how my dream of happiness had been shattered in an hour. For on the previous evening there had been dancing in the great house that stood in the midst of the garden, and I, as a favored suitor, had many times teased the hand of the Lady Cynthia. It is true it had been granted me, and my friends had still no reason to believe but that I was in possession of her heart. But I knew differently, for though her hand was in mine, her eyes sought continually the face of a young stripling, a member of the company of musicians hired to play while we danced. At first I mistrusted my eyes, refusing to believe such a thing. Few were more proud than my cousin, and it seemed impossible that she, of the highest in the land, could be so easily led astray.

But a lover's eyes are quick; and the truth, hideous though it were, forced itself upon me. Then, foolishly, I spoke bitter words to her, and she returned them. I reproached her, perhaps assuming more than my position warranted, for there was as yet no formal bond between us, only as I hoped, a complete understanding of the future.

We parted in anger, and all the night I had tossed and tossed, was a mystery to me. I could not fathom. No words had passed between them, and love, if it were love, had come swiftly, with but a look to kindle it. Once I thought it was a whim to try my love; but to choose for the test a man of the highest in the land, that was impossible for my proud cousin.

For a few minutes I paced the lawn with head bent and hands clasped behind my back. Then the impulse seized me to follow Cynthia, and play the spy. That I should see nothing that would please me I felt assured, but I desired to know the worst. So I walked swiftly to the hedge, and, finding no one behind it, continued my steps to a belt of trees that formed part of the great park of which the house and garden were the heart.

In the shadow of the trees stood Cynthia, and by her side the boy musician, his fiddle lying neglected on the ground and his hands clasping hers.

Then, as I watched, I saw him kiss her, and she returned the kiss.

I have ever been counted a man of cool brain and quiet temper, but here was a matter far different to a whistling bullet or the thunder of charging horses. There flashed into my mind a wild impulse to kill this stripling who stood between me and the girl of my desire. That the deed was unlikely to further my wooing was an argument that did not enter into my hot head.

It was her name I cried as I ran toward them.
"Cynthia!"

The musician drew back, but Cynthia faced me calmly.

"Why, cousin, what is this? A sword drawn before a lady? Has the sun added your brain?"

"I pray you to leave us," I said to her, the words coming thickly.

"Your presence is not of my seeking," she replied, "and unless Master Herick also wishes to be rid of me—"

"Nay, nay," stammered the youth.
I turned to him sharply.

"I have a matter to discuss with you," said I.
"He would not meet my gaze, but kept his eyes on the ground."

"Put up your sword, then," quoth Cynthia.
"Such arguments are poor logic."

My head was cooling, and I thrust the weapon back into its sheath.

"The gentleman is evidently more used to the bow than to the sword," I said, scornfully, pointing to the violin lying on the ground. Then I turned on my heel and left them.

The flowers were bright in the summer sunshine and I strode about the garden. All things spoke of beauty and happiness, and the joy of living. But in my mind was the picture of my love in the arms of another and returning kiss for kiss.

Yet—the chosen lover of the Lady Cynthia, a boy, a kinsman, and a coward. My thoughts found utterance in scornful words.

"Tut! These women are mad creatures, and it is foolish to have aught to do with them. There is plenty of work for a man—and a sword—to do in the world, and brave companions with whom to fight. The fiddlers and the women! The men for the fight and the wine cup. That is life for me!"

"Cousin Richard!"
The words came softly and sweetly to my ears. I turned sharply and found Cynthia standing behind me. Her hands were clasped before her, and her head bent—a picture of bashful humility, a little, I thought, too perfect to be true.

"Well?" I inquired shortly, being not yet recovered from my anger and scorn of mankind.

"I have thought from your manner—or, indeed, cousin, from your way of manner—that you are not pleased with me."

"That left me without a word. For none but a blind man could have been displeased with her as she stood there before me in the sunlight."

"It is a sad matter when—cousins—quarrel," she continued.

ARCHBISHOP JOHN J. WILLIAMS,

"You kissed the fellow," said I, speaking harshly, to hide the softness of my heart. Her humility vanished at my words.

"Why not?" she cried. "What right have you to spy on me? I will kiss whom I like—so you need have no fears for yourself, Cousin Richard."

Now, I had determined to have no repetition of the quarrel of the previous night. So I answered quietly, seeking to know the truth, and to abide the result as a man should.

"I ask your pardon for my hasty words," I said. "But a few weeks ago you made me believe that my suit was not distasteful. Now, in a moment, you cast me off for another. Have I no excuse for sorrow and anger?"

"Perhaps, Dick," she said softly.
Then I was conquered. I threw myself at her feet, crying that I loved her and would die for her, and all the sweet mad—peaches that lovers make. But she stood quietly, and when I loved and loved her, and when I loved and loved her, she looked down at me and said smilingly:

"The sun is warm, and I fear—"
I sprang to my feet, for a moment hating her. I had loved. But before I could speak Cynthia held out her hands to me, crying:

"Nay, you misunderstand me. I did but suggest that under the great oak tree we might converse with more comfort, and—(here she smiled at me) 'with less chance of being overlooked.'"

"Again you leave me at her word, and we crossed the lawn into the cool shade of the trees. One of them, a mighty oak, had its trunk circled by a wooden seat. It was not the first time we had visited it."

"How can I be pleased?" I returned mournfully.
"Then we must sit apart, not being friends," she said, and glided round the seat so that her back was toward me and the trunk of the tree between us.

So we sat in silence, while I pondered on the riddle that was so hard to read. Why had she come to me, a discarded and angry lover, with the kisses of another and more favored suitor fresh on her lips? And greater wonder still, why did she stay with me, and speak to me in this manner? Either her heart was hard, and taking pleasure in my pain, or else there was some mystery in her, and she had seen her kiss him.

Presently, as no sound came from the other side of the tree, I moved slightly, and bent my body so that I could see the graceful curve of her white neck, and a rosy red nestling in her dark hair. Then suddenly she turned her head and met my gaze.

"Why do you look at me, Cousin Richard, if you are so angry with me? But perhaps there is hate in your eyes. Is there hate in your eyes, Cousin Richard?"

For answer I moved toward her, but she held out her hands as if to push me away.
"Nay, nay," she cried, "it is not safe to have an angry man who hates me too near."

"You know that I do not hate you," I answered.
"I would see for myself. Look at me again, Dick."

Obviously I turned my head, and she do: likewise for a moment, we gazed into each other's eyes. Then she turned from me again, and said gravely shaking her head:

"Nay, I think I need have no fear. You may come round a little just a little more—Dick."

And then I had the advantage, for my arm slipped round her waist so that she could not run away, and with the air of a master (as, indeed, a man is when he holds his love in his arms), demanded that she should tell me the answer to the riddle.

"There was once," she began, as if she told some tale of the fairies, "a poor girl who worked for her bread. She was foster sister to one who could have given her all she needed, but in her pride she would have none of it. Her only talent was in music, so she joined a company of musicians, and because none but men might play with them in public places, she donned man's attire. But it led her into sad trouble, for one day a gallant gentleman would have slain her because she was a woman, and she was a musician."

"But why did you not tell me this before?" I cried, amazed at the story.

"I was afraid, last night, deserving punishment, and I thought—"

"Yes?" I inquired, pressing her closer to my side.

"I thought that if I were to have you for a husband, I had best train you to be a good one."

—Harold Olsson, in The King.

Youth's Department.

"Who-hoo, who-hoo-who-hoo!"
Oh, hear it booming along!

The voice of the horn-eared, moon-faced owl,
Solemn and deep and strong.

Far, far in the gloomful woods, the old
He sits and stares from his door,
Stares and listens, listens and stares,
And questions over and o'er.

"Who-hoo, who-hoo-who-hoo!"
"Who was that that went like a flash?"

It was Reynard fleeing by.
Soon from the frozen fields will come
Wild on the wind his cry.

"Who-hoo scurrying through the brush?"
"It was Bunny taking a leap."

"Who-hoo stirring the alder boughs?"
Chickadee hopped in his sleep.

"Who-hoo, who-hoo-who-hoo!"
Keen and quick is his gleaming eye;

Run, little wood miles, run!
If the ogre owl comes swooping down,
He will end your dainty fun.

Hark! a sound on the frosty air:
Some voice comes ringing through;
And again the great owl booms it out,
That weird and shivery, "Who-hoo!"

Who-hoo, who-hoo-who-hoo!"
—Elizabeth Hill, in The Whistler.

The Curing of Biddy Bly.

Biddy Bly was a good little girl except for fifteen minutes every morning and every night. That was half an hour of madness every day, and the badness came out when her mamma combed

her hair. Biddy Bly's hair was long and crinkly and yellow. Every morning Biddy's mamma called over the fence: "Grandma, please come now. I'm going to do Biddy's hair." Then grandma came and brought her button bag with her, and sometimes Biddy allowed grandma to tell her about the brass buttons from grandma's coat and the glass buttons from Aunt Sally's wedding dress.

Once upon a time, when Biddy went out into the yard to play, she felt grandma sitting fanning herself and looking as if she were going to faint. Aunt Jane sat fanning herself, and looked as if she were going to faint; and mamma sat fanning herself, and looked as if she were going to faint.

Biddy forgot the awful mousey nests her mamma had combed out of her hair, and she began to dig a cave in the great snowdrift by the fence. It was lovely and soft and cool, and Biddy forgot the sun was shining, for she was digging away deep into the very heart of the snow world. All at once she threw down her shovel and rubbed her eyes. She did not know anybody lived in a snow-cave, yet she was staring at a funny little old fairy witch. She knew it was a fairy because it had wings—queer, withered, twenty-twenty wings, and she knew it was a witch because she walked with a staff.

"Come here!" cried the fairy witch.
Biddy did not want to move, but she could not help herself; her feet moved and took her with them. The fairy witch took Biddy Bly's long braids of hair and undid them, then she dipped her hands in a pall of sticky stuff that stood beside her and rubbed it over her head. Biddy was not looking at the witch at all, she was seeing a picture of a bad little girl, who was jumping up and down while a mamma combed her hair and a grandma told her button stories.

"Now," said the fairy witch, "go where I bid you."
Biddy Bly's feet began to move again, and she went farther and farther down into the snow-cave. Once her hair, which was flying all about her, touched the walls, and she cried: "Biddy Bly, a small piece, and bit it. It tasted exactly like molasses candy. 'My, how lovely!' she thought. 'I don't believe there is another little girl in the world who likes molasses candy hair.'"

"There isn't," said the old witch fairy. "Go on; you must eat up your own hair."
Biddy walked and walked and walked down the snow-cave, and all at once she came to a pygmy kindergarten. There were fifty little pygmy building houses with little blocks of ice but as soon as they saw Biddy Bly they shrieked: "Oh, see the big girl with molasses candy hair!"

Then they flew at her and jumped on her back, and climbed on her head and ate up her hair. It hurt the little girl terribly to have her hair torn out, but she cried and cried and cried; but the pygmies screamed with delight, for every tear that fell down her cheeks turned into beautiful white gumdrops and rattled on the ice floor, and they ate them up. When Biddy Bly could not weep any more gumdrops, and when the pygmies had eaten up all her molasses candy hair, they went back to building castles with their little ice blocks.

Biddy Bly felt her feet move again, and she walked and walked and walked till she got out of the snow-cave. She found herself in the sunshine again standing in the yard where her mamma was hanging out the washing. How her mamma did scream when she saw Biddy's bald head! She tried to wash the fairy stuff off her head, but as she washed it off, there was no hair left. So she made her a little black silk cap to hide her shiny head.

Biddy Bly lives next door to me. Little yellow curls are beginning to grow on her head, and now she knows all her grandma's button stories by heart—Good Housekeeping.

Historical.

Many acts of Jefferson proved that he was a great statesman. Probably one of the greatest strokes of diplomacy occurred during his presidential year, 1804-1809, when the purchase of Louisiana was made. This territory included not only the State of Louisiana, but all the country lying between the Mississippi River on the east and the Rocky Mountains on the West, and extending from Canada on the north to Texas on the south.

On July 4, 1803, just fifty years after the signing of the Declaration of Independence, Thomas Jefferson breathed his last at the ripe age of eighty-three. On the tombstone which marks his grave at Monticello is this inscription: "Who's his own hand: 'Here was buried Thomas Jefferson, author of the Declaration of Independence, of the Statutes of Virginia for Religious Freedom, and Father of the University of Virginia.'"

Robert Fulton's second steamboat, which he called the *Claremont*, after his friend Livingston's home on the Hudson, was 130 feet long and eighteen feet wide, with a mast and sail, and on each side a wheel fifteen feet in diameter, fully exposed to view. The initial trip of this wondrous boat, as it was then looked upon, was 150 miles from New York to Albany, and was made in thirty-two hours. The *Claremont* was the first steamboat of practical use ever invented. This was Fulton's last work of great public interest, as he died in 1815, having rendered an untold service to the industrial welfare of his country and the world.

Nathaniel Greene, the "hero of the South," at the close of the Revolutionary war, passed through Philadelphia, and was received with great enthusiasm. In 1785 he moved with his family to the plantation which the State of Georgia had given him. He lived in quiet and happiness less than a year, dying of stroke at the age of forty-four. His comrade, Wayne, who was with him at the time of his death, said of him: "He was great as a soldier, great as a citizen, immaculate as a friend—I have seen a great and good man die."

After filling many of the highest offices of the country, Thomas Jefferson was elected President of the United States in 1801. He had looked on with serious misgivings at some of the ceremonies and formalities in the Executive Mansion, while Washington was President. He loved Washington, but he did not think that the President of the United States should be a people formal, and hold himself aloof from the cordy quite as much as Washington did. He believed in "republican simplicity," and on the occasion

of his inauguration, he went on foot to the Capitol, clothed in his everyday dress and attended by some of his political friends.

—Wilbur F. Gordy in his text-book on "American Leaders and Heroes," repeats a story of Washington during the occupancy of the American army at Valley Forge. When "Friend Potts" was near the camp one day, he heard an earnest voice. He approached, and he saw Washington on his knees praying to God for help and guidance. When the farmer returned to his home, he said to his wife, "George Washington will succeed. George Washington will succeed, and the Americans will secure their independence." "What makes thee think so, Isaac?" inquired his wife. "I have heard him pray. Hannah, in the woods today, and the Lord will surely hear his prayer, he will, Hannah, thee may rest assured."

Why We Eat Some Foods.

Why do you take milk in your tea? Most persons would answer because they liked it that way, but the scientists have found a deeper reason, and have learned ones discovered by science.

These learned ones discovered by science are as follows: We use sugar in our tea to prevent injury to the coatings of our stomachs. Whenever tannic acid and albumen meet, they fall desperately in love with each other, get married without bans and live together ever afterward as tannate of albumen, or leather. Now, there is tannic acid in tea and a lot of albumen in the coating of the stomach. The tannic acid coats as much of this as is allowed by the laws of chemistry and so far injures the stomach. But milk also contains albumen. When milk is added to tea, therefore, the molecules of tannic acid select their albumen partners from it, and as a divorce is unknown to tannate of albumen the albumen of the stomach remains single, and so the lining of the stomach is uninjured.

Now you may imagine that when you mix a salad dressing you put vinegar in it because it tastes better made that way, but you are wrong again. It is for a chemical reason, which is as follows:

Raw vegetables are easily enough digested by cows and horses, but with difficulty by the human stomach, because they contain that hard, fibrous substance, cellulose. But acids dissolve cellulose, and vinegar is an acid. That is why we take it with salad and cabbage, and doubtless that is why it tastes so well, for the palate is an excellent judge of what is good for the stomach. Oil is added for the very good reason that it protects the lining of the stomach from the action of the acid in the vinegar.

Why do we take butter on bread? Partly because wheat flour does not contain enough fat, and partly because butter contains a trifling quantity of substances called "extractives," which in some unknown way stimulate the appetite and aid digestion.

Why do we take pepper, mustard and spices? Because they tickle the glands of the stomach and make them work. Consequently they produce an abundant supply of digestive juices. They also stir up the liver, and a stirring up of this organ is an important thing for people who live sedentary lives.

Why do we put salt on our meat? Why, there are two principal salts in our body, and their supply has to be kept up. They are sodium salts and potassium salts. There is sufficient of the latter in the food we eat, but not of the former. We therefore have to add the sodium salt in the form of common salt, which is sodium chloride. An other reason why we eat common salt is that a certain amount of hydrochloric acid is needed by the stomach for the purposes of digestion and also to kill off some of the microbes we swallow. This acid is manufactured in the stomach from hydrogen and chloride of common salt. We take more salt with some meats than with others, because some naturally contain less salt than others. So by our condiments we seek to even up things.—New York Press.

Making Baseballs.

The opening of the baseball season calls attention to the fact, not generally known, that Cincinnati supplies practically the entire Middle West with baseballs, and that something like 125 people earn a living in the baseball factories of the city.

The process of making baseballs on a wholesale plan is a rather interesting one, consuming in a single season something like eight thousand skins. The scrapping from the shoe factories, of which the "raw" balls are moulded, are stored in cellars of about one acre area, and from this material the balls are shaped by hand. According to quality, the ball is bound by a few or several dozen rounds of cord. The "raw" balls are placed in automatic moulds, shaping the ball, and at the same time pressing out all moisture, to the tune of three hundred gross a day. One employee will shape as many as four thousand of the raw balls in a single working day.

The newly pressed balls are then sorted and allowed to dry out for a period of from three to four weeks, when their weight is reduced to perhaps five ounces. Something like 200 of these twice-bound leather balls can be found in the bins at all times.

In the meantime the skin covers for the balls have been seasoned and dressed on the floor below, and, as a last stage in the process, rubbed back and forth against an upright blade, to take out all kinks in the skin, and also to whiten them. The covers are cut from the skins by hand and sewn around the balls by women. Each woman is expected to finish fifteen dozen balls daily. From every skin fifteen to twenty pairs of covers are obtained.

All in all, it takes about six weeks to turn out a baseball, and the prices of the product will vary from three cents to \$1.25. The largest sales are of the five-cent balls.

About twenty-eight varieties of balls are now turned out. Within the last five years the baseball trade in Cincinnati is said to have exactly quadrupled itself.

In addition to baseballs the local factories turn out a considerable number of footballs. The skins for these are cut according to pattern and sewn by machine. The stuffing and lacing is the work of girls. Each ball passes through seven pairs of hands in the course of manufacture, while the boxing gloves, also a Cincinnati product, pass through about forty.

An average of 150 pairs of gloves a day is the daily output. Some 35,000 bats are made in Cincinnati every year. All but the cheapest grade, which is of poplar, are out from ash timber, of varying sorts.—Cincinnati Tribune.

The Horse.

Notes from Lyndon, Vt.

Each week as the BREEDER comes to hand a score or more of readers in this town eagerly peruse its columns, and are put in touch with the horse interests of the country. The Passumpsic Valley is a prosperous farming section, and for seventy-five years has been a horse-producing country. As early as 1830 Sherman Morgan stood here for service, and later his sons, Billy Root, Vermont Champion, Royal Morgan and Batchelder, did service here.

Old Morrill was bred in Danville, Vt., a nearby town. He left sons and daughters to perpetuate his memory, perhaps the most prominent of which was Vermont Ranger, better known as the Francis Drew Horse.

Up till 1861 many of the best of the Morgan stock found a market in the South, many of the Billy Roots going to Georgia. In the sixties and seventies two of the best patronized horses here were Black Morgan 1st and Black Morgan 2d, and up to about 1880, nothing but the Morgan blood had much of a foothold. Since then many Hambletonian stallions have stood for service in this and adjoining towns, and today within a radius of twenty miles a man can patronize almost any family of horseflesh he may fancy, with the possible exception of the thoroughbred and the Arab.

I shall mention them by families and the owners will pardon in advance any omissions and brief descriptions. The Hambletonians are Red Elm (2.164), by Red Wilkes, out of the dam of Royal R. Sheldon (2.042) and Arden Boy (2.085). This horse is the sire of Red Spy (2.241), and Hurr Oak (2.241) is owned by C. M. Darling of Lyndonville.

Klem, a big, stout son of Krenlin, also stands at Lyndonville at the stable of his owner, Edward McGuinness. Vermont Chief, by Darlington Chief, also stands at Lyndonville at the stable of his owner, E. C. Graves. Strips, a good son of Alexander and Wild-wave, stands at the farm of his owner, a few miles north from Lyndonville.

Kendall (2.171), by Kent, out of a daughter of Daniel Lambert, John Moulton's old reliable campaigner, the hero of many a hard-fought contest, is retired to the stud at Lyndon Centre, Vt., and after all the years of hard service he has seen at the race track, he is today the very best road horse I know, and his first crop of foals indicate that he will be a success in the stud. He is owned by the popular young blacksmith, Guy Dresser.

At St. Johnsbury Gen. W. Grout has Henry 8, a successful sire both of speed and carriage horses, also Gold Thorn, by Red Bird, out of the dam of Stranger. At West Concord George Higgins has the son of Jay Gould, Strike; and E. Hill has Cardinal Wilkes, the fast son of Jesuit, at his stable in West Concord, Vt. The Hambletonian Billy Bird, by Jay Bird, is at Danville, Vt.

The Clay family is represented by Royal Clay, by Harry Plummer, son of Harry Clay 95, out of Red Letter, by Leland. This horse deserves more than a passing notice. He is of ideal road horse size, 15.5, weighs 1100 pounds, has a high, showy way of going. Out of Morgan mares this horse will produce the class of road horses so much in demand. He is owned by John G. Peene, Barton, Vt. Rexton, by Rex Patchen, divides with Harry Plummer the burden of holding up the honors of the Clay family. He is owned by E. Hill, West Concord.

The Hackneys will be represented by a young horse lately brought from Long Island under the care of Fred Gorham, at his farm four miles southeast of Lyndonville.

The French Coachers that were boomed extensively here for several years have gone and left nothing of their family.

The Morgans, the natural product of the State, are represented by H. H. Packer's son of Cobden Jr. (2.15), out of a Peters Morgan mare. This horse is at Newark. At Burke, Elmer Coe has a fine specimen in Rub Morgan, a son of Ethan Allen 2d and a Green Mountain mare. Ourett has a very showy little horse by Ethan Allen 3d, at West Burke, and C. J. Treffen at the same place keeps his black son of Vermont Ranger out of an old-sty Morgan mare.

At Sheffield, Bradley Ingalls has the typical representative of the Morrill family in his horse Fox. This horse is sixteen hands, and has the look and action of his grandsire, Vermont Ranger, and crossed on the smaller Morgan mares is getting a nice class of colts. W. G. Hanscom of Sheffield, Vt., has a son of Paragon that has been a success as a race horse and in the stud. At St. Johnsbury H. E. Moore has Cobden, the fast pacer, son of Cobden (2.28). At Lyndon I have George Roberts' chestnut stallion Billy Roberts, tracing twenty-three times to Justin Morgan. Four of these are short crosses to Billy Root, and oldtimers tell me that in looks and action he much resembles the immediate get of that horse. Of his success in the stud I can say that it will take as much money to go out and buy six of his colts as it would six of the get of any horse in this section.

As his stable companion I have the three-year-old Teddy, imported to Daniel Lambert, being by a son, Abraham, out of a Ben Franklin mare. I am dreaming that I have drawn the real prize in this fellow, and don't want any one to wake me up just yet.

The above is an index to what we are trying to do in this section of Vermont as breeders. The mares are practically all in the hands of farmers of moderate means, and the colts are picked up as fast as fit by Boston and New York buyers, mostly for road use. Nearly all in a half-finished condition from the breeder to the user. At Lyndon nothing is being worked at the track and nothing will be this season.

St. Johnsbury has a large lot of youngsters taking work, but I have not been down to know just how good they are. F. B. Lang is at the remodeled track at Barton. His string is made up of his old standbys, Henry's Girl (2.13), Burr Oak (2.24), Ijams, the four-year-old son of Axtell, that looks good as a pacer, though always before worked at the trot. The three-year-old Estelle, the full sister to Ez-lazy, looks good for the place in the pacing division of the stakes. They will not be worked regularly this season, but will be saved for next year. Mr. Lang has a few others in his string, one by Billy Bird, son of Jaybird, out of his old campaigner by Stamboul. H. Brewster is at, or is about to locate at Barton for the season.

A. R. Van Tassel of Dubois, Pa., made a short visit to Vermont last week, and bought of Mountain View Farm a pair of Hambletonian-Morgan colts for his own use. Mountain View Farm is owned by Elmer Darling of the Fifth-avenue Hotel, New York City. They have done very little in horses at this farm, but, under F. Davis, formerly of West Burke, they are getting together a fine lot of colts and carriage teams, mostly of the Morgan family.

Yours, E. H. HOFFMAN.

Notes from Vergennes, Vt.

Will you kindly mail me a copy of the "up-to-date" rules of the "National Trotting Association."

I am pleased to inform you that I have leased the old fair grounds and track here and have succeeded in getting the town's people interested. We had a meeting on last Wednesday night at the Stevens House, which was largely attended, and a committee of three were chosen to formulate rules and by-laws for the association, to be known as the Vergennes Driving Association. This committee consists of Mr. G. P. O. Kimball, R. W. McCuen and myself. We are to meet on next Wednesday evening again and adopt our rules and by-laws and elect our officers.

I am instructed to advise you that on the following dates this association will hold meetings: July 3 and 4, Aug. 26, 27 and 28, Sept. 30, and Oct. 1 and 2. At all three of these meetings liberal purses will be offered and paid to the winning horses, and horse-men and others will be treated hospitably, and we hope that we can count on the horse-men in general to give us a helping hand and make the meetings a success.

You will, doubtless, notice that our last two meetings come, one just before and one just after the Champlain Valley Circuit, and I will say right here that we intended to be in this circuit, but were just too late to get our advertising in with theirs.

I now have twelve horses in my stable, which I am driving for other parties. They are all young and without a record, but there are a few that are very promising. I will head the list with Aintree, a five-year-old gelding by Chimes 5348, out of Dearest (2.23). Aintree's register number is 31857, and his dam, Dearest, is by Mammoth King 1279, and her dam is Grandmother (2.30). Aintree is taking his work very nicely, and is a very fast pacer. Next is John C., eight years old, by Krenlin (2.073), out of a Daniel Lambert mare. This horse showed a mile last season in 2.14, but has no record. He is taking his work very nicely and is very fast. Next is a green pacer by Denning Allen, four years old. This horse can show a 2.30 clip now, and is improving very fast. Next is Diamond, a three-year-old stallion by Deforo (2.24), out of a mare by Thorough. This colt is very level headed and has shown quarters in forty seconds. Next is Silver Heels, a bay mare, five years old, by Potential, out of the dam of Nancy Harkaway (2.13). This mare is coming along very fast for one that was not broken until the past winter. The next is a three-year-old stallion by Homestead, out of Wild Nancy (2.15). This colt is smart for a youngster. I also have a two-year-old by Krenmpet, he by Krenlin (2.073), and this is very promising.

Our track, which is the fastest in the State, is in excellent condition.

Yours truly, H. B. FIELD.

Vergennes, Vt., April 26, 1902.

The Morgan Horse.

Precisely as the trotter in general belongs to America, so is the Morgan horse indigenous to and the peculiar institution of the State of Vermont. His ancestors came from many quarters, and his progeny have been scattered all over the land, and even to remote parts of the earth, but right here he wore his swaddling clothes, and right here he has been developed into the type he is. It is the object of this brief article to point out one fact in which the Morgan horse is distinctive to this day, and we do not err when we say that his is the only breed of trotters which has maintained its individuality.

The recognized great families, as shown by the performances of the present, and as agreed by all writers on such subjects, are the Hambletonian, the Mambrino, the Clay, the Star, the Blue Bull, the Royal George, the Hiatage and the Morgan, the respective founders of which breeds were all foaled before the middle of the last century. Time was when we heard it said of a horse, he is a Hambletonian, he is a Mambrino, he is a Clay, he is a Star, he is a Blue Bull, he is a Royal George or he is a Hiatage, but that time has passed. Crossing and re-crossing of blood have brought it about that none of these horses is called distinctively after the founder of his tribe; but Morgan horses are still called Morgan all the world over, although Justin Morgan was foaled more than half a century earlier than either of the heads of the other families.

There must be a reason why this one name has been so especially preserved through all these generations, and it is found in the comparative preservation of the type. The descendants of Justin Morgan were great progenitors, as a rule, and were scattered all over the State. It was soon found that their get was peculiarly adapted to this climate and this hilly country. Always willing, sturdy, as cheerful up hill as down, with plenty of speed for the road, and handsome withal, they filled the bill.

For many years, while residents of other States were chasing up various strains of blood to get driving horses to suit them, Vermonters remained content with what they had. It was a case of seek no further. Hence Morgan horses have been outcrossed far less than other strains, hence they have maintained their individuality, and hence their distinctive name still attaches to them, and ever will. The trotting horse is the peculiar institution of America, and we are proud of it; but the Morgan horse is the peculiar institution of Vermont, and we are prouder of that, because the fact is so much closer to us. He is our own.

From the Middlebury (Vt.) Register.

Several good stories were told at the banquet of the Gentlemen's Driving Club the other evening. One of the best was told by President Bigelow concerning a friend of his, who for convenience sake we will call Tom Jones. Mr. Bigelow said that when Jones was a young man, about twenty years of age, his father gave him a horse that he had been driving on the road for a great many years. Tom took him out one afternoon and rode behind him, and when he returned home his father said:

"Well, Tom, how did you like him?"

"Father," replied Tom, "to be candid with you I wish you had given me a horse nearer my own age, so that he would be a little more companionable."

One of the features of the Detroit meeting this summer will be team races.

Horse Owners! Use

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A PAIR OF THE LATE PRESIDENT MCKINLEY HORSES.

Representative Jersey Cattle.

I send you three pictures of famous Island-bred Jersey cattle. The bull is without doubt the most famous animal that ever left the Island of Jersey since the early eighties, when the champion cow Coomassie was purchased by an American breeder and brought to this country. The name of this bull is Flying Fox. He was champion over the Island, besides taking many minor prizes.

The enterprising importer, Mrs. S. Cooper, now has Flying Fox at Linden Grove Farm, Coopersburg, Pa., with some two hundred head of imported Jerseys made up of the cream of the Island, besides taking many minor prizes.

Both female pictures represent the same cow; one taken when she was thirteen years of age, before milking and the other at fifteen years old after milking. This cow was known on the Island of Jersey as Rosette 5th, but her name in this country is Sultanne's Rosette. She was champion cow over the Island, and I believe that since the time of Coomassie, she is the only cow that has herself been champion, and that has produced two champions; hers being her son, Flying Fox, before mentioned, and her daughter, Alcante, that milked over ten thousand pounds of very rich milk in a year, and went into the herd of Lord Rothschild in England, where she produced prize winners, and where her blood is still held as a most valuable breeding element. Before going to England Alcante produced on the Island of Jersey a bull called The Owl, which was imported to America by Mr. William Rockefeller, in whose herd at Tarrytown, N. Y., he did splendid work.

Rosette is not only the dam of Flying Fox, but has produced several other very remarkable bulls, among which are Ravacoh, John Bull and Forfarshire, the latter being one of the most popular bulls on the Island since Flying Fox came away.

The Royal Agricultural Society of Jersey is very far-seeing in its efforts to keep the Island stock up to a high standard of quality. For more than 150 years the laws of the Channel Islands have prohibited the importation of cattle except for beef purposes, to be slaughtered "a quarantine" at the port. This has kept the native stock pure, and it has been bred up by maintaining bulls from the finest cows until breed characteristics have become so fixed and the type so modified to ideal standards that the Jersey has become, par excellence, the gentleman's cow, as the Short horn used to be for forty years ago. The distinction between the Jersey and the other breeds of Channel Islands cattle, whether Jersey, Guernsey or Alderney, all having originated from the same stock, is the richness of their milk in butter fat. This is a quality which by selection can be bred into the stock, and since a herd book has been established for the preservation of pedigree, it has been discovered that success along the lines of butter production follows similar methods of breeding to those used for the production of speed in the trotter or running horse. Separate strains of blood have their peculiarities and characteristics, and in crossing these different lines some of the unions are found to nick better than others.

Flying Fox is an instance of one of the greatest crosses that has developed in Island blood and his sire and his mother are both products of crossing the same lines, namely, those of the cow Sultanne and the bull Welcome, which were most famous figures on the Island twenty-five years ago.

The Royal Agricultural Society of Jersey awards premiums to bulls and cows upon specific qualifications by which they are closely judged. In order that Island breeders of moderate means shall have access to the best bulls, the Society stipulates, in giving its premiums, that the bulls passing therefor shall be retained at public sale at a fee not in excess of \$1 sterling for a certain length of time after having received the premium. Golden Fern's Lad, the sire of Flying Fox, had been sold to England upon expiration of this limit, and before his great value was fully appreciated.

When Flying Fox became champion bull over the Island he was under the same restriction, but to defend him from excessive service his owner refunded to the association all of his winnings, which were exceedingly large. He paid certain fines for noncompliance with the terms and raised his service fee to five times the stipulated amount, at which point he received ample patronage and the best cows on the Island. No other bull had ever been sold to do this, but the laws permitted the return from England of his sire, Golden Fern's Lad, the latter would have been equally popular.

In this country the Rosette side of Flying Fox's pedigree is better known and appreciated than is the other institution of the Island, and to America in one of Mr. Cooper's importations, and at thirteen years old was sold in 1900 at auction for \$900, on which occasion her bull calf five months old brought \$900, and this was before the recent advance in Jersey stock had commenced, unless we may call it the first step in that advance. Those prices would look small now for animals which the course of events have shown to be such important figures in prospective Jersey pedigrees.

The great nick on the Island for the Sultanne blood have been the lines of Welcome, Carlo, Coomassie and Farmer's Glory. In fact, if you will take the prize winners of the last five years and extend their pedigrees you find in nearly all cases that they are made up of the distribution of the blood of Sultanne against one or more of these best nicking lines. Today the breeder would hardly think of keeping up with the times without using more or less of the blood of Sultanne, through her double grandson, Golden Lad, this breeder of trotters would in attempting to complete on the tracks without using the blood of Hambletonian through one of his great sons, Dictator Harold, Electioneer, George Wilkes or Alexander's Abolisher.

The photographs which I have sent are untouched by the brush, and therefore represent exactly, without exaggeration, the points of these celebrated animals. It is, of course, common to let a cow's udder fill to its fullest extent with milk, before photographing her, and that is the custom, nothing less would do justice to Rosette than to present her in that condition, but the character of udder in her case is that which milks down to "leather" with a minimum of flesh, the milk-out picture will interest the connoisseur. Her teats are of a good size, beautifully placed, and the milk veins show out prominently. She gets three crosses of Welcome through her dam, and partakes more of the Welcome blood than the milk-out picture will interest the connoisseur. Her teats are of a good size, beautifully placed, and the milk veins show out prominently. She gets three crosses of Welcome through her dam, and partakes more of the Welcome blood than the milk-out picture will interest the connoisseur.

The Jersey cow has long had a place in the

affections of breeders who are also fond of the trotting horse. Col. Henry S. Russell, who owned the champion stallion Smuggler and many other great trotters, is a fancier of the Jersey, and at times has maintained splendid herds at the Home Farm. The late A. B. Darling, well known as a breeder of trotting horses, had at one time the most famous herd of Jerseys in the world, including the all-year champion butter cow Euros. Other well-known horsemen who are or have been breeders of Jerseys are George B. Inches, John E. Thayer, Charles L. Hood, Miller & Sibbey, Henry Pierce, William Simpson, Jacob Rupert, J. B. Haggin, J. H. Walker, H. R. C. Watson, William Rockefeller, A. H. Moore, V. L. Kirkman, F. C. Sayles, W. N. Burgess, August Belmont, Jr., William C. Whitney, Benjamin F. Tracey, John S. Clark, etc. Twenty other names might be added equally as prominent.

American breeders of Jerseys were the first to make butter yield the standard. Island breeders and those of England subsequently fell into line, and now of their dairy sires there are in certain classes the milk of the cows for twenty-four hours shall be tested, and the butter yield recorded, as a part of the competition. This has to be done on the fair ground. We need only to perfect a competitive testing system in this country, a subject which is now agitated among breeders, to give the breeding of butter cows an element of sport, which would have its fascinations for many who now hold aloof. Racing cows against each other in the production of butter may come later.

Within the last dozen years the handling of milk as a commercial article throughout the country has so changed in its system as to give great importance to Jersey blood as a factor for improving the dairy stock. The farmers now take their milk to the creamery, where they get credit for it solely upon the percentage of butter fat which it shows. Thanks to an invention called the Babcock Tester the unscrupulous producer can no longer water his milk at a profit. The Babcock is now sharp a detective. A single cross of Jersey blood upon the ordinary dairy cow will add much to the percentage of butter yield. Just as the Texas steer has been wiped out of the beef products of the country through grading up of the Texas cow to finer models by the use of Shorthorn, Hereford and Polled Angus bulls, adding millions to the value of the annual beef product, so must the economies of dairying grade up our native stock to higher butter yield by the use of Jersey or Guernsey bulls. The field before the Jersey breed is a grand one to graze upon. For students and lovers of the breeding subject the time was never more propitious than it is now to take up the Jersey. The whole world seems to be short of dairy stock, and dairy products are advancing as fast as meats. England has for a long time taken our beef, but this is the first year when to any extent her buyers are on the ground seeking milk cows with which to re-equip her dairies. These she has formerly bought of Holland, but richness of milk is now taking precedence in England as well. Oddly enough, her buyers of dairy cattle are not searching our grazing districts of the West, but are here in Massachusetts and other localities, where Jersey blood has long had a foothold. The dairy papers report that freights have been secured for four hundred head to be shipped to the north of England.

Since the above was written, reports of the Is-lan and Spring shows have arrived. The get of Flying Fox have been great winners. Since he left there popular choice with breeders has fallen upon his half-brother, Forfarshire (son of Rosette), and his son, Agatha's Flying Fox. The latter is out of the grand, never-beaten show cow Agatha, now in the Cooper importation with Flying Fox. Agatha is one of the famous "blacks" got by Ravacoh, who was also a son of Rosette.

HARR COMSTOCK.

The Horse Famine.

When Colonel Berry in 1888 predicted a horse famine before we could raise more horses, many dealers laughed at the idea, and thought that out of our fifteen million horses we could always find plenty of good horses. Now these dealers, with men scouring the country, are unable to find half enough good market horses to supply their trade, while the export buyers find but few horses suited to their markets, and such a thing as a carload of horses coming in from the breeder to the commission men is unheard of these times. They must get out and buy their horses to sell or they do not get them.

There are regular shippers who are constantly buying and fitting horses for market. They all report horses scarce, hard to find and still harder to buy, and but very few high-class horses can be found. This horse famine must last until the young horses and colts have been bred since horse breeding began again. There is a great revival of horse breeding throughout the Western States, especially of draft and coach horses. Every draft mare in the country is now carefully bred to a good draft stallion, and the imported coach stallions are bred to trotting-bred mares, and the good prices are encouraging the farmers and horse breeders to get into market as soon as possible to supply the eager demand of our city markets for fine horses.

Breeder and Sportman.

Surely the man who induces breeders and owners to give tasty and appropriate names to his horses is a benefactor to his kind. Here's what the New York Sun has to say: "Mr. Lawson's offer, or rather his intention to offer an annual prize of \$500 for the best names for trotting horses, is well conceived and deserving of praise. The distortions and monstrosities in the way of horse nomenclature, senseless and illiterate, which have disgraced our trotting track annually in increasing quantity, are a national disgrace. They are freaks unfit to be seen. They would not be received in any dime museum. If Mr. Lawson can succeed in establishing a system of horse naming which, if not poetic, may at least be sane, some people will call him a great man."

Adaria (4) (2.174) is now a member of Vance Nuckols' stable.

Stick a pin in it. You buy the sample bale for your horse. German Pest Moth will do the rest. Write to C. B. Barrett, Importer, Boston, for circular.

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No. 2.	The Branford	2.24 Trot,	1000
No. 3.	The Nutmeg State,	2.23 Pace,	600
No. 4.	The Blackstone,	2.40 Pace,	500
No. 5.	The Tontine Hotel,	2.18 Trot,	600
No. 6.	The Elm City,	2.35 Trot,	500

Entries CLOSE MAY 21st.

When horses must be named and first payment made.

PAYMENTS—One per cent. of purse payable upon each date named, May 21, June 21, Aug. 21, 1902.

CONDITIONS—National Association Rules to govern, excepting that hoppers will be allowed.

ENTRANCE FEE—Three per cent. of purse, with five per cent. additional from the winners of each division of the purse. No nomination will be liable beyond amount paid in, provided a written notice of withdrawal is received at the time any payment falls due. In the above events two horses may be named as one entry, provided they are in the same stable. Right reserved to declare off any purse failing to fill satisfactory to the management.

Applications for entry blanks and all entries to be made to the secretary, Branford Driving Park, Branford, Conn. Make checks payable to Louis A. Fisk, Owner.

P. S.—The big Branford Fair is held upon the premises of the Branford Driving Park, and all races are managed and purses paid by Louis A. Fisk, Owner. Branford Driving Park is situated on N. Y., N. H. & H. R. R., nine miles east of New Haven, Conn.

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Watson Stake, 2.35 pace, - Purse \$800 | Lincoln House Stake, 2.23 pace, Purse \$800

ENTRIES CLOSE JUNE 2, 1902.

CONDITIONS—Rules of the National Trotting Association, of which this association is a member, to govern, excepting that hoppers will be allowed. A horse distancing the field, or any part thereof, will be entitled to but one money. First money only paid for a walkover. Customary division of purses. All events mile heats to harness, best three in five. Entrance fee, five per cent. of purse, with five per cent. additional from the winners of each division of the purse. No nomination will be liable beyond amount paid in, provided a written notice of withdrawal by postoffice registered letter is received at the time any payment falls due. Payments will be due and payable June 2, 1902, July 2, 1902, and Aug. 2, 1902, when horses are to be named and must be eligible June 2. Terms of entry: More than one horse may be named as one entry, provided they are in the same stable. In case two or more horses have been named as one entry, and any horse has been separated from the stable from which it was originally named, and such separation made according to rule, they shall be eligible to start in the race if the forfeits falling due after said separation have been met according to conditions upon the payment of forfeits which fell due before said separation. Entries to the above will close June 2, 1902. Right reserved to declare off and refund any payment in any class which does not fill satisfactorily. Class races will be given in connection with the above. Applications for entry blanks and all entries to be made to the secretary.

J. F. KNIGHT, Secretary, Worcester, Mass.



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